

AN ATLAS OF 1975 GEOS-3 RADAR ALTIMETER DATA FOR HURRICANE/TROPICAL DISTURBANCE STUDIES

Volume II

(NASA-TM-X-69364-Vol-2) AN ATLAS OF 1975
GEOS-3 RADAR ALTIMETER DATA FOR
HURRICANE/TROPICAL DISTURBANCE STUDIES,
VOLUME 2 (NASA) 241 p HC A11/MF A01

N77-24727

Unclas

CSCL 04B G3/47 34122

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April 1977

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|--|--|--|--|--|--|
| 1. Report No. NASA TM-X-69364 | | 2. Government Accession No. | | 3. Recipient's Catalog No. | |
| 4. Title and Subtitle An Atlas of 1975 GEOS-3 Radar Altimeter Data for Hurricane/ Tropical Disturbance Studies (Volumes I and II) | | | | 5. Report Date April 1977 | |
| | | | | 6. Performing Organization Code | |
| 7. Author(s) H. Ray Stanley, NASA Wallops Flight Center Barbara Chan, John R. Munson, Wolf Research and Development Group | | | | 8. Performing Organization Report No. | |
| | | | | 10. Work Unit No. | |
| 9. Performing Organization Name and Address EG&G/Washington Analytical Services Center, Inc. Wolf Research and Development Group P.O. Box 476 Pocomoke City, Maryland 21851 | | | | 11. Contract or Grant No. NAS6-2639 | |
| | | | | 13. Type of Report and Period Covered | |
| 12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Wallops Flight Center Wallops Island, Virginia 23337 | | | | 14. Sponsoring Agency Code | |
| | | | | | |
| 15. Supplementary Notes | | | | | |
| 16. Abstract This document's primary purpose is to provide the means for locating and extracting GEOS-3 altimeter data acquired for the analysis of specific hurricanes, tropical storms and other disturbances. This data is also expected to be extremely useful in the analysis of the behavior of the altimeter instrument in the presence of severe meteorological disturbances as well as provide a data base which can be useful in the resolution of apparently anomalous geoid or sea surface characteristics. Geographic locations of 1975 hurricanes and other tropical disturbances have been correlated with the closest approaching orbits of the GEOS-3 satellite and its radar altimeter. The disturbance locations and altimeter data were gathered for a seven-month period beginning with GEOS-3 launch in mid-April 1975. Areas of coverage were the Atlantic Ocean, the Caribbean, the Gulf of Mexico, the west coast of the continental United States, and the central and western Pacific Ocean. Volume I contains disturbance coverage data for the Atlantic Ocean, Gulf of Mexico, and Eastern Pacific Ocean. Central and Western Pacific coverage is documented in Volume II. | | | | | |
| 17. Key Words (Suggested by Author(s)) Hurricane, Tropical Disturbance, GEOS-3, Altimetry | | | | 18. Distribution Statement Unclassified - unlimited STAR category 47 | |
| 19. Security Classif. (of this report) Unclassified | | 20. Security Classif. (of this page) Unclassified | | 21. No. of Pages 480 | |
| | | | | 22. Price* | |

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4.0 CENTRAL AND WESTERN PACIFIC AREAS

4.1 General

Much of the data on the storms occurring in these areas were extracted from Tropical Disturbance Classification Worksheets. Since the coding system used was not clearly understood by the preparer of this document (no accompanying legend or definitions were provided) and the sheets not readable in some places, the information contained in this section is incomplete as presented. Therefore, it was decided to include all of the worksheets in Appendix A, for reference purposes.

Storms as identified on the worksheets are listed below together with their periods of occurrence.

| | |
|------------------------------------|---------------------|
| . Tropical Disturbance (TD-02) | (4/19/75-4/28/75) |
| . Tropical Disturbance (No Name-A) | (7/21/75-7/25/75) |
| . "Mamie" (TD-03) | (7/26/75-7/30/75) |
| . "Nina" (TD-04) | (7/31/75-8/4/75) |
| . Tropical Disturbance (TD-05) | (8/4/75-8/6/75) |
| . "Ora" (TD-06) | (8/9/75-8/12/75) |
| . "Phyllis" (TD-07) | (8/12/75-8/17/75) |
| . Storm No Name-B | (8/13/75-8/16/75) |
| . "Rita" (TD-08) | (8/16/75-8/23/75) |
| . "Susan" (TD-09) | (8/24/75-9/1/75) |
| . "Tess" (TD-10) | (8/31/75-9/9/75) |
| . "Viola" (TD-11) | (9/4/75-9/8/75) |
| . "Winnie" (TD-12) | (9/7/75-9/12/75) |
| . "Alice" (TD-13) | (9/15/75-9/20/75) |
| . "Betty" (TD-14) | (9/16/75-9/23/75) |
| . "Cora" (TD-15) | (10/1/75-10/6/75) |
| . "Doris" (TD-16) | (10/3/75-10/6/75) |
| . "Elsie" (TD-17) | (10/9/75-10/15/75) |
| . Tropical Disturbance (TD-18) | (10/14/75-10/20/75) |
| . "Flossie" (TD-19) | (10/20/75-10/23/75) |

Table 4-1 is a complete listing of all tropical cyclones occurring in the Pacific Area during the calendar year 1975, with the exception of Typhoon Lola (Storm #01) which occurred several months prior to GEOS-3 launch. Several other storms, not included on the above list, are included in Table 4-1. These are: Typhoons Ida and June, Tropical Storms Grace and Helen, and two tropical depressions (TD24 and TD25). Table 4-1 contains information of general interest concerning these storms including storm number, type, name (if assigned one), period of warning, maximum wind velocity, minimum pressure (SLP), etc.

Detailed meteorological information has also been made available for certain of the Pacific storms and is included in this document. Meteorological summaries are provided for the following:

- . Typhoon "Lola"
- . Typhoon "Nina"
- . Typhoon "Ora"
- . Typhoon "Phyllis"
- . Typhoon "Rita"
- . Typhoon "Tess"
- . Typhoon "Winnie"
- . Typhoon "Alice"
- . Typhoon "Betty"
- . Typhoon "Cora"
- . Typhoon "Elsie"
- . Typhoon "Flossie"
- . Typhoon "Ida"
- . Typhoon "June"

In the cases of Ida, June, Grace, Helen, TD24, and TD25, no detailed information concerning their day-to-day locations was provided. However, general track maps were provided. Therefore, these maps were used to estimate the positions of these storms.

TABLE 4-1. 1975 PACIFIC AREA TROPICAL CYCLONES (APRIL - DECEMBER)

| STORM* | TYPE | NAME | PERIOD OF WARNING | CALENDAR DAYS OF WARNING | MAXIMUM (SFC) WIND VELOCITY (KTS) | MINIMUM SLP (MBS) | NO. OF WARNINGS | | DISTANCE TRAVELED (NM) |
|--------|------|---------|-------------------|--------------------------|-----------------------------------|-------------------|-----------------|------------|------------------------|
| | | | | | | | TOTAL | AS TYPHOON | |
| 02 | TD | --- | 23 APR-28 APR | 6 | 25 | 004 | 19 | --- | 605 |
| 03 | TS | MAMIE | 27 JUL-29 JUL | 3 | 40 | 994 | 10 | --- | 774 |
| 04 | TY | NINA | 31 JUL-04 AUG | 5 | 135 | 904 | 15 | 8 | 1084 |
| 05 | TD | --- | 06 AUG-07 AUG | 2 | 30 | --- | 4 | --- | 293 |
| 06 | TY | ORA | 10 AUG-12 AUG | 3 | 65 | 976 | 10 | 4 | 630 |
| 07 | TY | PHYLLIS | 12 AUG-18 AUG | 7 | 120 | 920 | 27 | 15 | 1622 |
| 08 | TY | RITA | 18 AUG-23 AUG | 6 | 80 | 966 | 23 | 7 | 1465 |
| 09 | TS | SUSAN | (See Note 1) | 6 | 50 | --- | 19 | --- | 816 |
| 10 | TY | TESS | 02 SEP-10 SEP | 9 | 95 | 945 | 33 | 22 | 1613 |
| 11 | TS | VIOLA | 05 SEP-07 SEP | 3 | 45 | 996 | 10 | --- | 416 |
| 12 | TY | WINNIE | 09 SEP-12 SEP | 4 | 65 | --- | 13 | 4 | 1188 |
| 13 | TY | ALICE | 16 SEP-20 SEP | 5 | 75 | 971 | 18 | 5 | 1316 |
| 14 | TY | BETTY | 17 SEP-23 SEP | 7 | 95 | 944 | 26 | 11 | 1785 |
| 15 | TY | CORA | 01 OCT-06 OCT | 6 | 105 | 943 | 21 | 11 | 2376 |
| 16 | TS | DORIS | 03 OCT-06 OCT | 4 | 55 | --- | 10 | --- | 470 |
| 17 | TY | ELSIE | 09 OCT-15 OCT | 7 | 135 | 900 | 25 | 14 | 1656 |
| 18 | TD | --- | 15 OCT-17 OCT | 3 | 30 | 002 | 8 | --- | 432 |
| 19 | TY | FLOSSIE | 20 OCT-23 OCT | 4 | 70 | 977 | 15 | 4 | 798 |
| 20 | TS | GRACE | 25 OCT-02 NOV | 8 | 60 | 994 | 29 | --- | 1940 |

TABLE 4-1. 1975 PACIFIC AREA TROPIC CYCLONES (APRIL - DECEMBER) (Cont'd)

| STORM* | TYPE | NAME | PERIOD OF WARNING | CALENDAR DAYS OF WARNING | MAXIMUM (SFC) WIND VELOCITY (KTS) | MINIMUM SLP (MBS) | NO. OF WARNINGS | | DISTANCE TRAVELED (NM) |
|--------|------|-------|----------------------|--------------------------------|---|----------------------|-----------------|---------------|------------------------------|
| | | | | | | | TOTAL | AS TYPHOON | |
| 21 | TS | HELEN | 03 NOV-04 NOV | 2 | 45 | 998 | 6 | --- | 375 |
| 22 | TY | IDA | 06 NOV-11 NOV | 6 | 85 | 959 | 22 | 8 | 1865 |
| 23 | TY | JUNE | 16 NOV-24 NOV | 9 | 160 | 876 | 32 | 25 | 2641 |
| 24 | TD | --- | 27 DEC-28 DEC | 2 | 30 | --- | 5 | --- | 211 |
| 25 | TD | --- | 27 DEC-29 DEC | 3 | 30 | --- | 10 | --- | 227 |

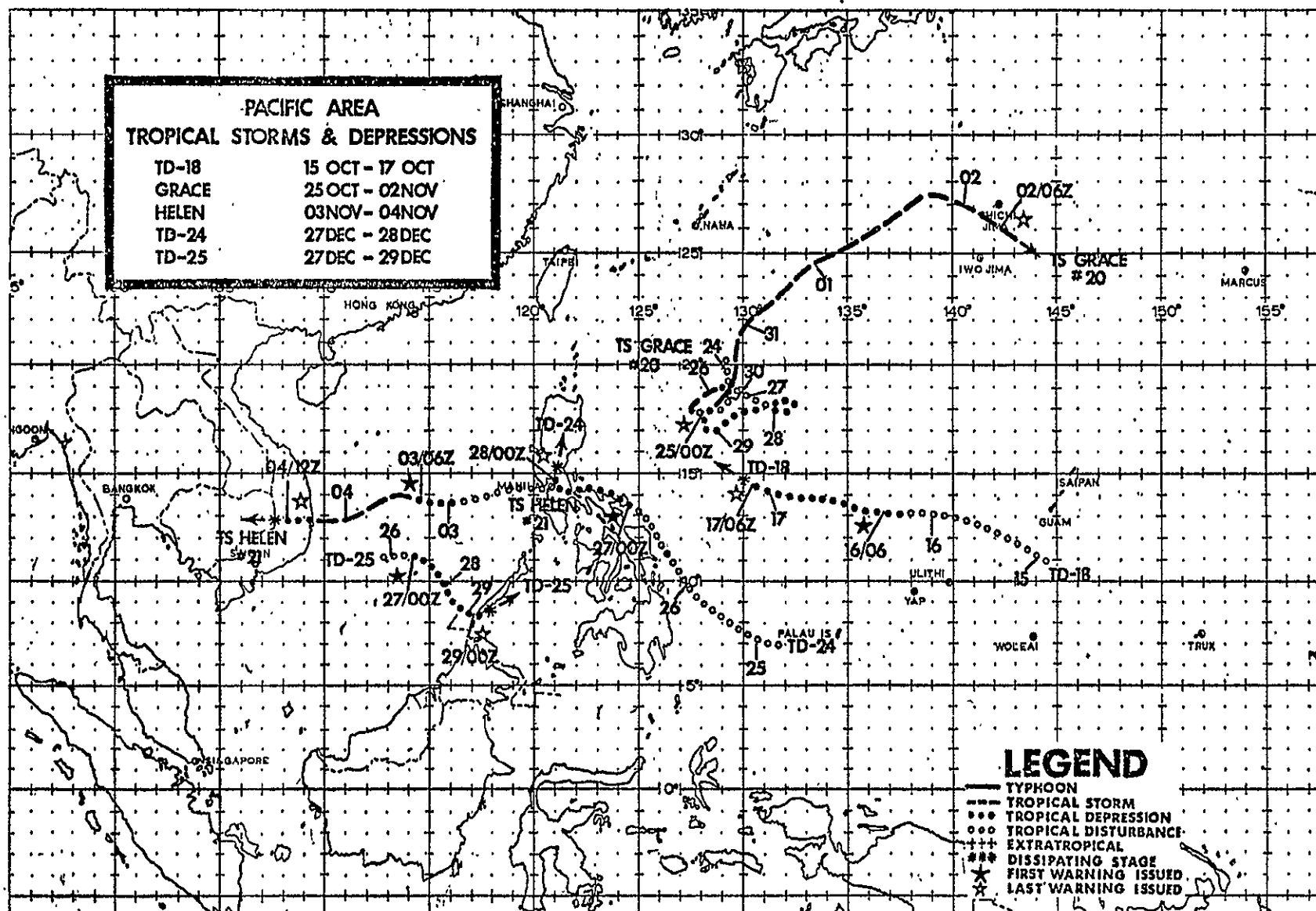
Note 1: SUSAN 26 AUG & 27 AUG AND 29 AUG - 01 SEP

* LEGEND:

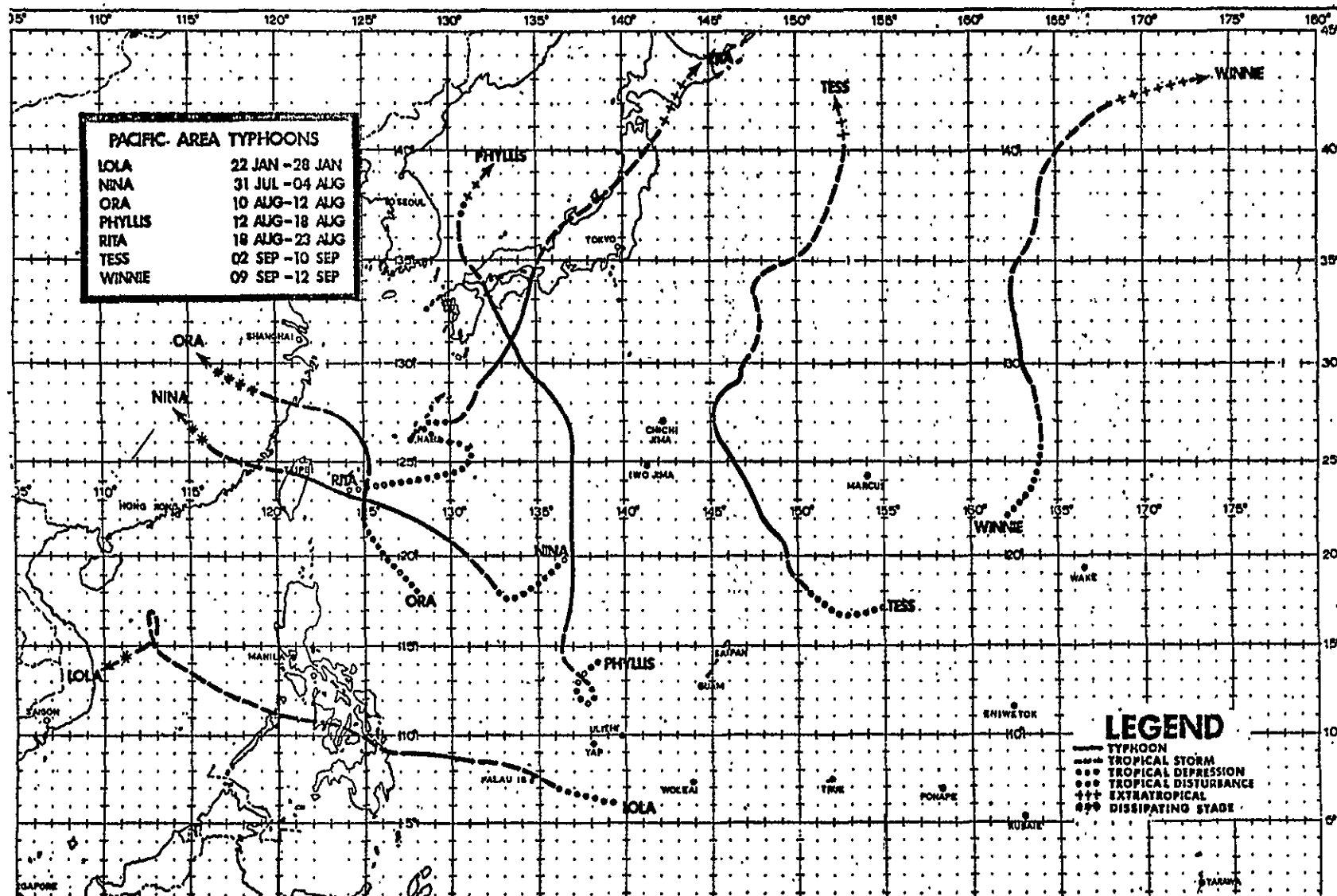
TY = Typhoon

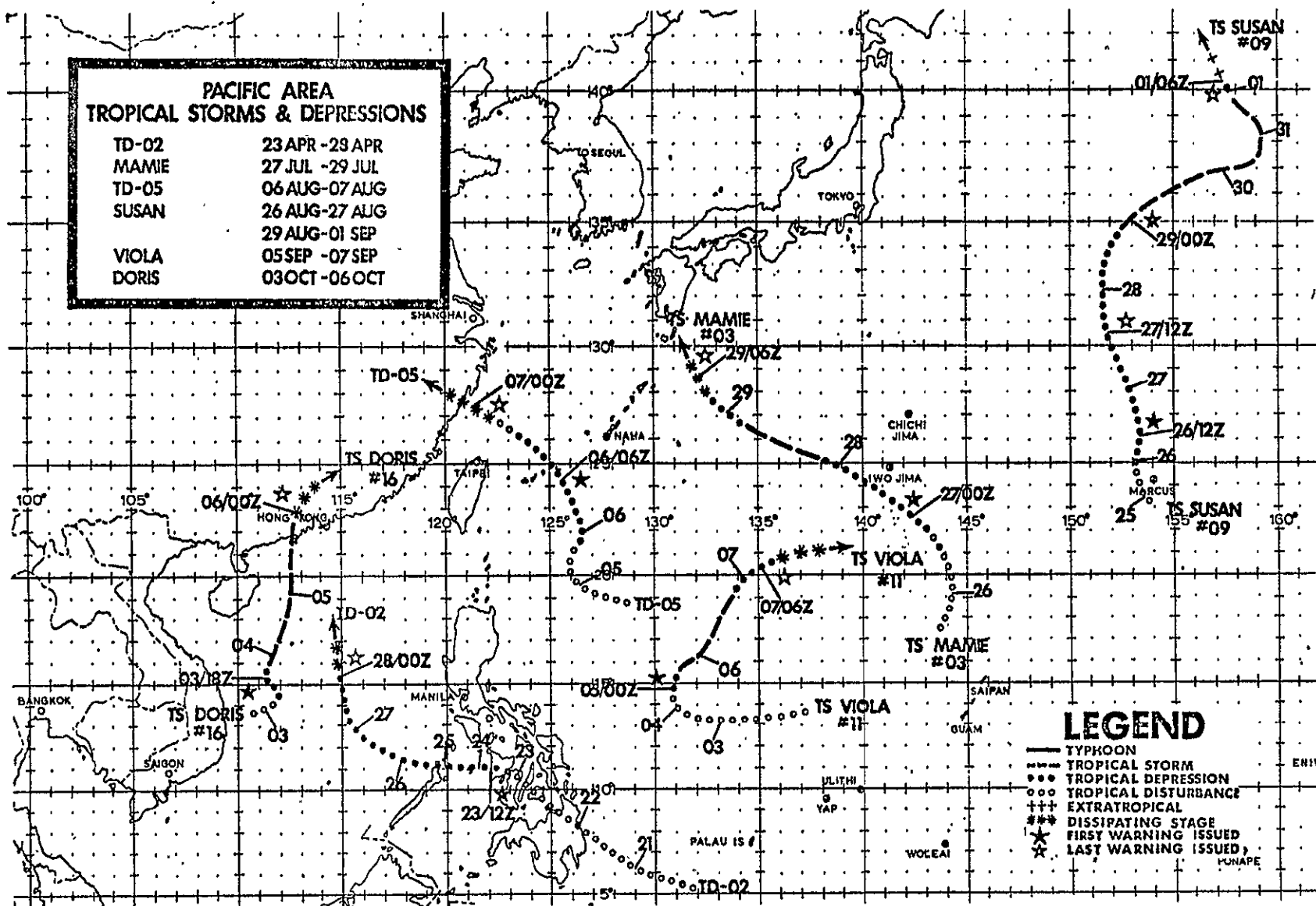
TD = Tropical Depression

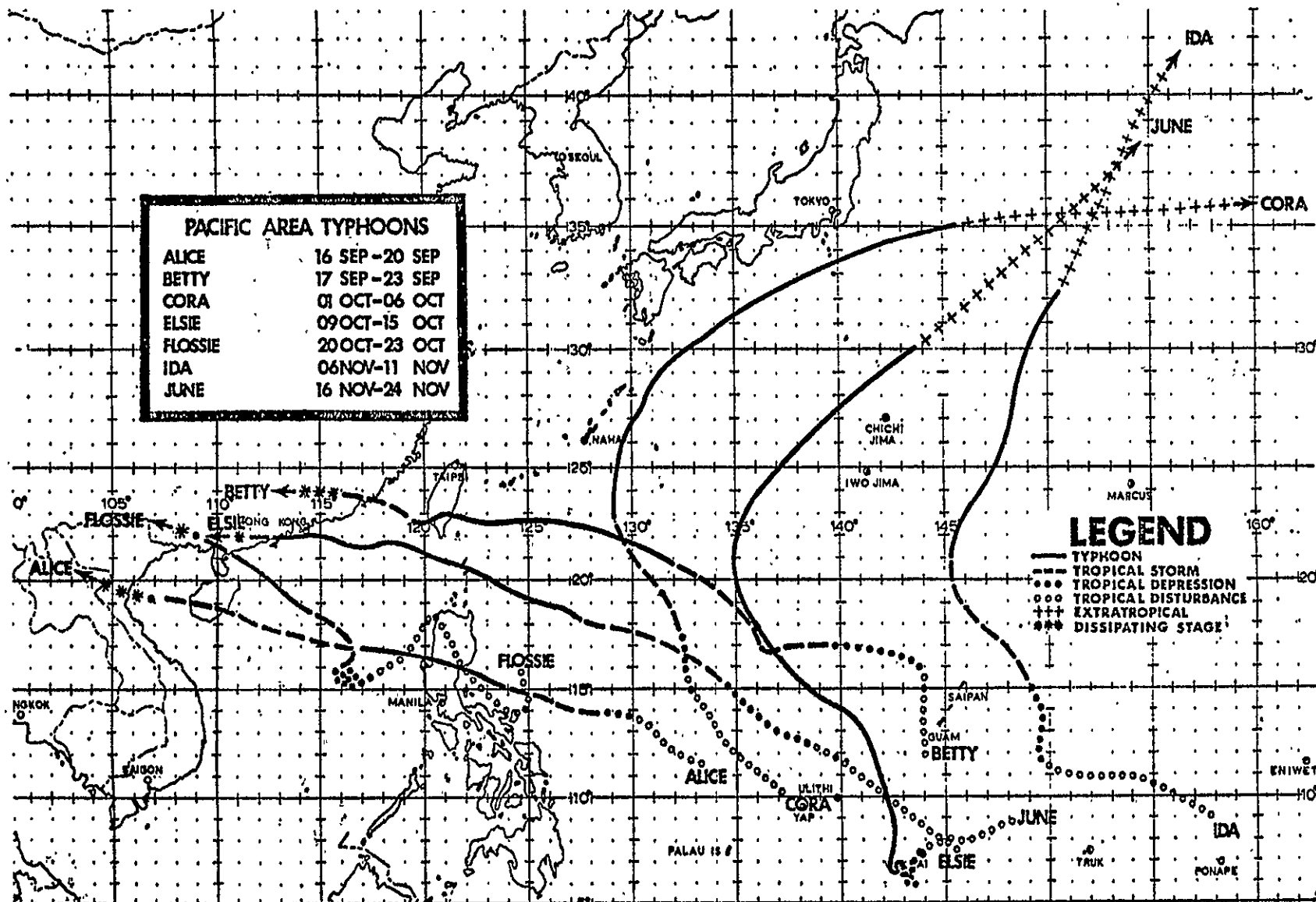
TS = Tropical Storm



REPRODUCIBILITY OF THIS
ORIGINAL PAGE IS POOR







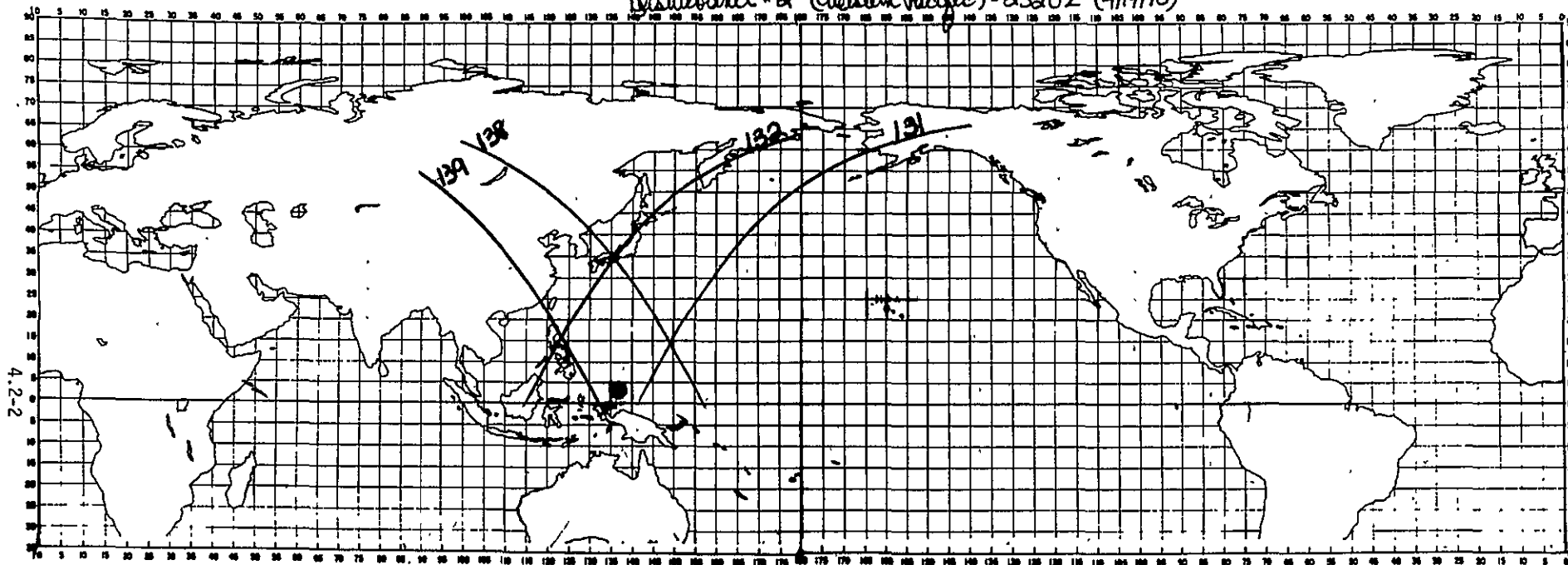
DISTURBANCE: TD#2 (WESTERN PACIFIC)

DATE: APRIL 19 - APRIL 28, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|---------------|-----------------|------------------|---------------|---|
| | | Latitude | Longitude | | | |
| 4/19 | 2320Z | 2.7N | 136.0E | | | |
| 4/20 | 1150Z | 5.5N | 131.0E | | | |
| 4/21 | 0015Z | 7.3N | 127.3E | | | Tropical Disturbance |
| 4/22 | 0100Z | 9.2N | 126.5E | | | |
| 4/23 | 0008Z 1244Z | 12.2N 10.5 | 122.8E 121.5 | | | |
| 4/24 | 0103Z 1142Z | 12.0N 11.0 | 121.0E 120.5 | | | Tropical Depression |
| 4/25 | 0003Z 1237Z | 11.5N 11.0 | 120.3E 119.3 | | | |
| 4/26 | 0057Z ? | 11.3N 11.5 | 117.2E 115 | | | |
| 4/27 | 0153Z 1253Z | 11.8N 12.0 | 113.9E 112.5 | | | |
| 4/28 | 0053Z | 10.0N | 112.0E | | | Below classification limits Dissipating Stage |

NOTE: See track map, page 4.1-7

Disturbance #2 (Western Pacific) - 2320Z (4/19/75)

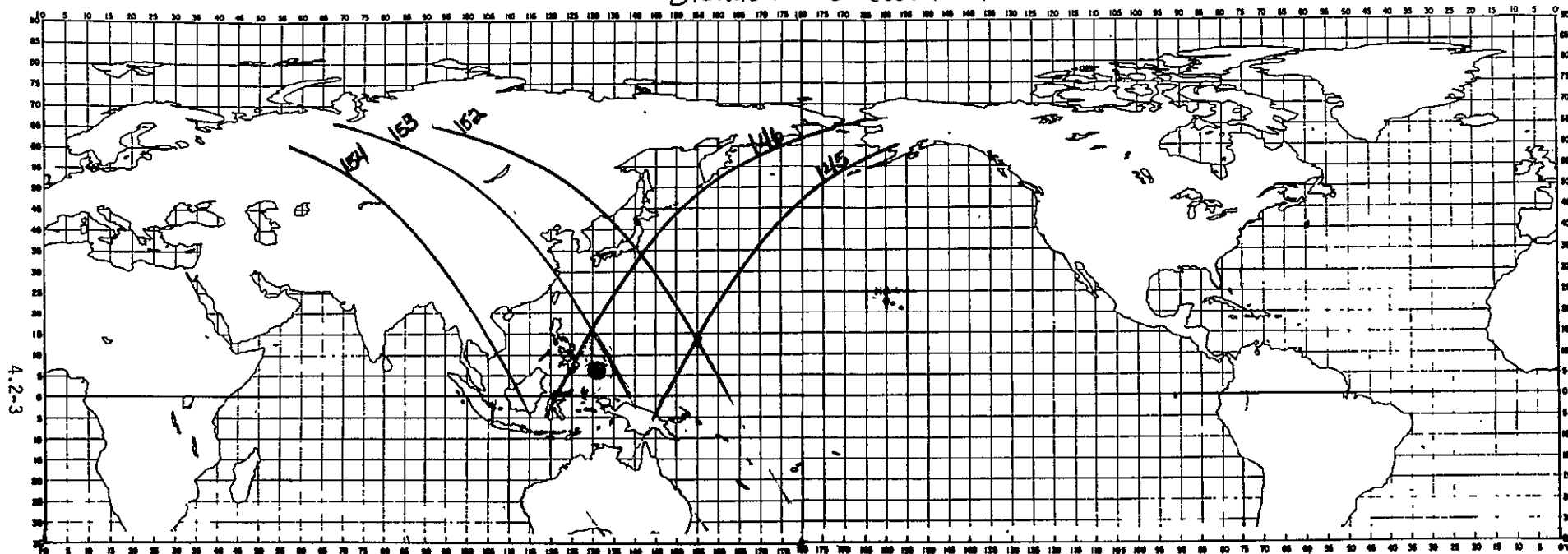


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2320Z | 2.7N | 131.0E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 131 | -25.78 | 05 33 09 Z | 06 23 09 | Do | | | |
| 132 | -51.11 | 07 14 56 Z | 08 01 56 | Do | | | |
| 138 | 156.95 | 17 25 39 Z | 17 32 39 | Do | | | |
| 139 | 131.63 | 19 07 26 Z | 19 08 26 | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance #2 (Western Pacific) - 1150 Z (4/20/75)

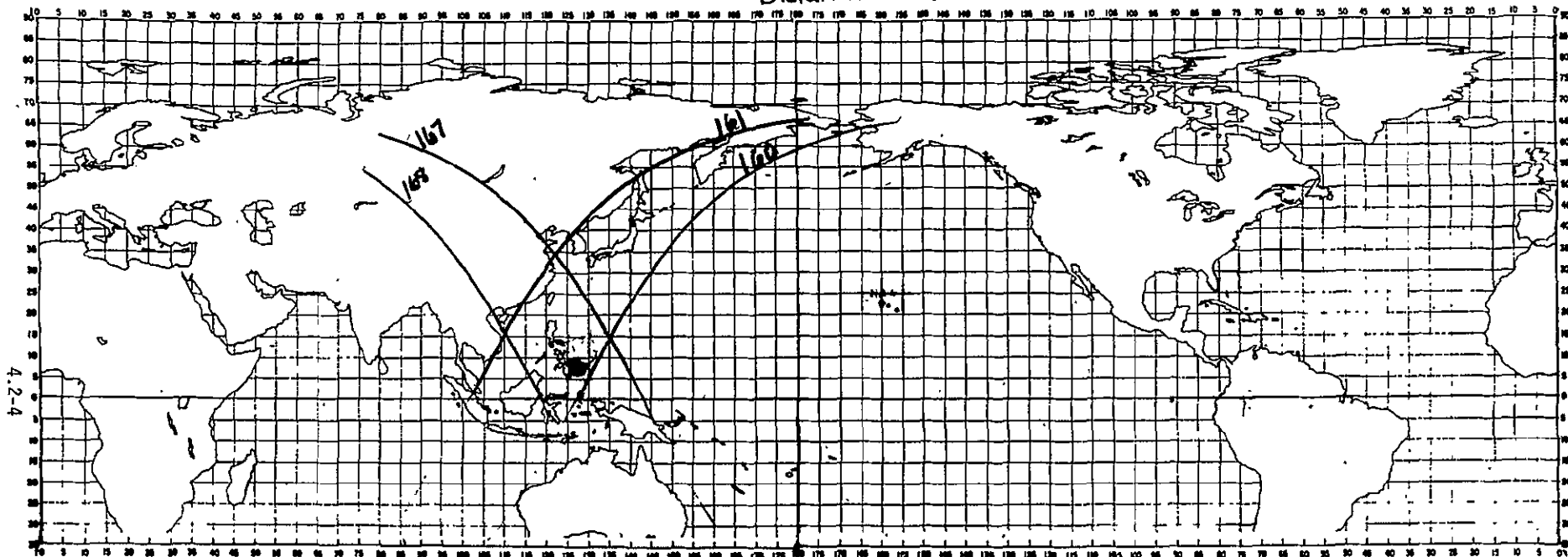


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1150Z | 5.5N | 131.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 145 | -20.31 | 05 18 09 Z | 06 09 Z | Do | | | |
| 146 | -45.64 | 06 59 56 Z | 07 48 Z | Do | | | |
| 152 | 162.42 | 17 10 39 Z | 17 16 Z | Do | | | |
| 153 | 137.10 | 18 52 26 Z | 19 00 Z | Do | | | |
| 154 | 111.78 | 20 31 13 Z | 20 55 Z | Do | | | |

Disturbance #2 (Western Pacific) - 0015 Z (4/01/75)



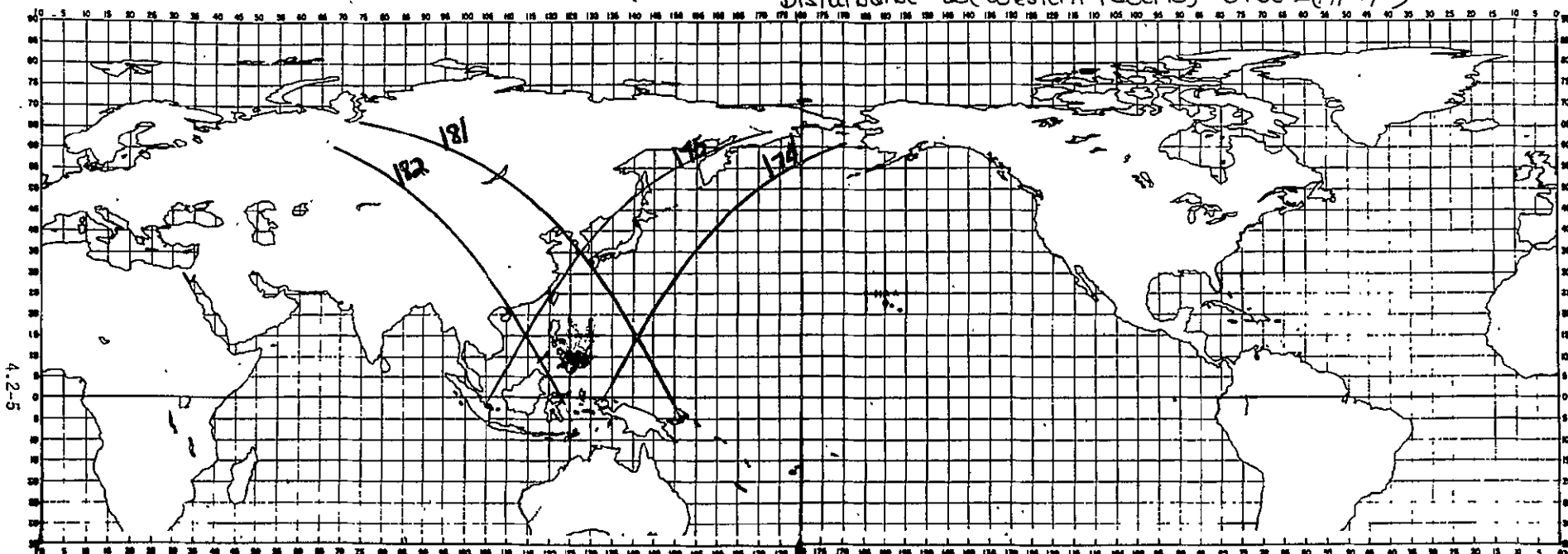
4.2-4

LOCATION
TROPICAL DISTURBANCE

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0015Z | 7.3N | 127.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 160 | -40.16 | 06 44 56 Z | 07 34 Z | No | | | |
| 161 | -65.49 | 08 26 43 Z | 09 14 Z | No | | | |
| 167 | 142.57 | 18 37 26 Z | 18 43 Z | No | | | |
| 168 | 117.25 | 20 19 12 Z | 20 27 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance #2 (Western Pacific) - 0100Z (4/22/75)

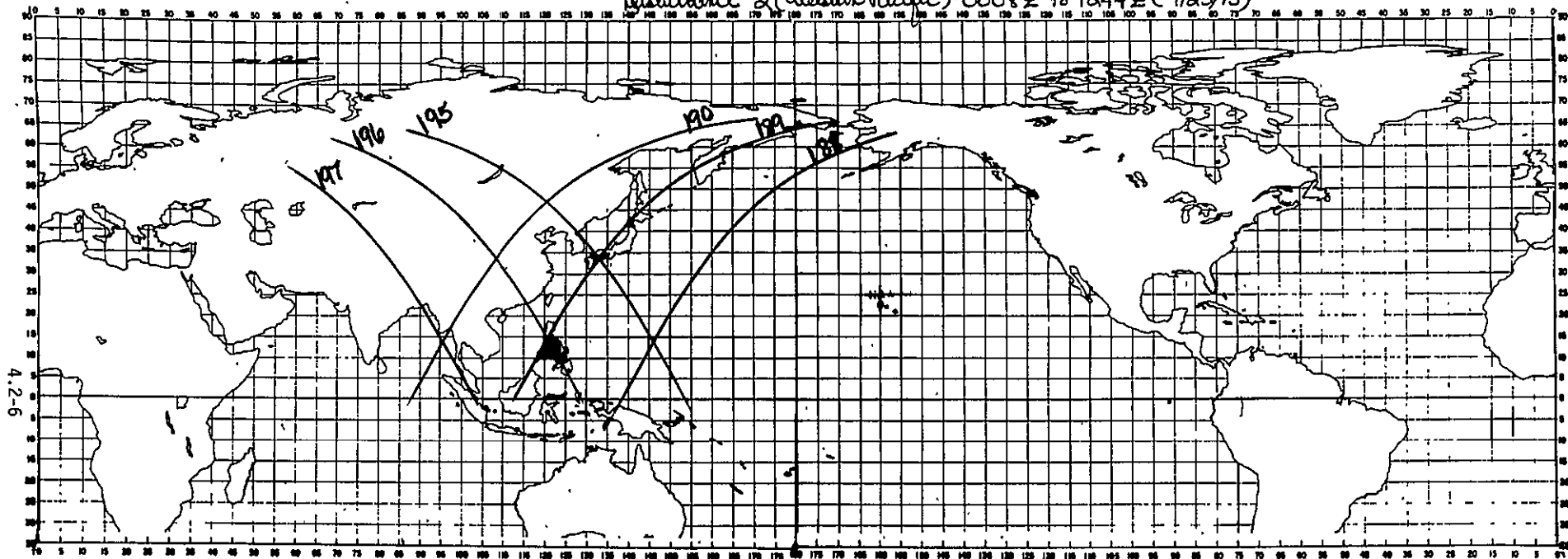


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0100Z | 9.2N | 126.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 174 | -31.69 | 06 29 56 Z | 07 19 Z | No | | | |
| 175 | -60.02 | 08 11 43 Z | 08 59 Z | No | | | |
| 181 | 148.04 | 18 22 26 Z | 18 27 Z | No | | | |
| 182 | 122.72 | 20 04 13 Z | 20 11 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance #2 (Western Pacific) - 0008Z to 1244Z (4/23/75)

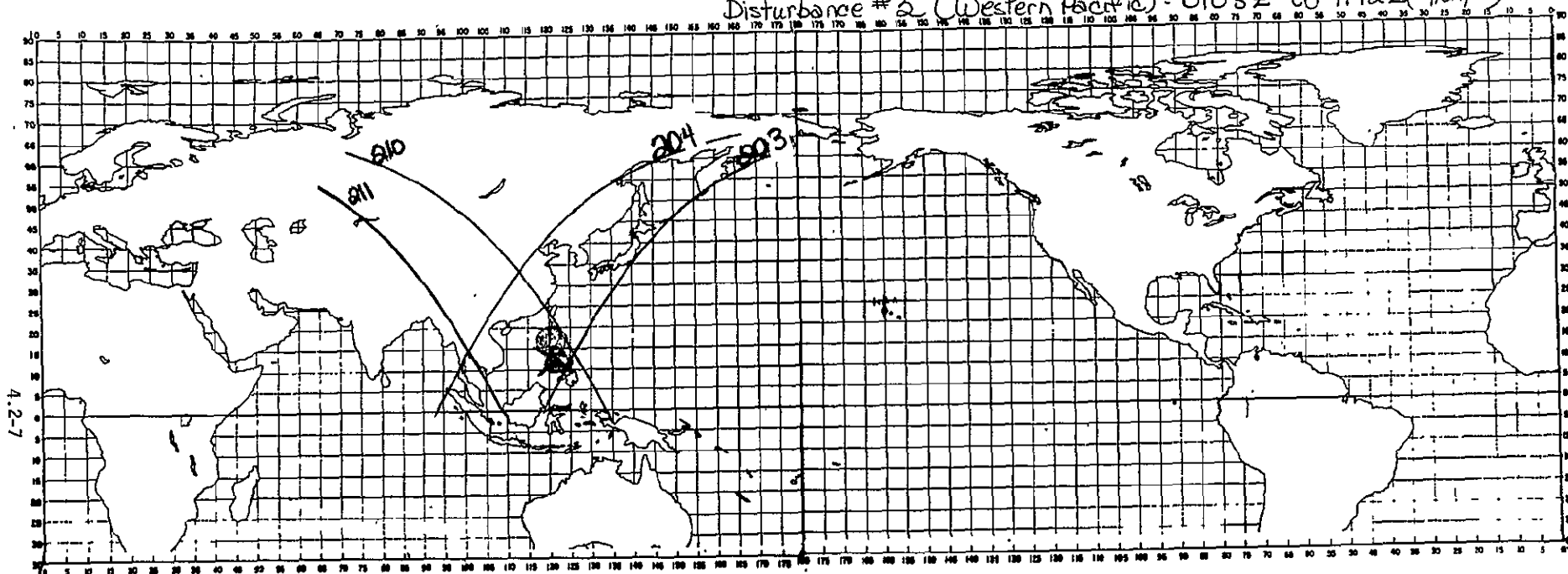


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0008Z | 12.8N | 122.8E |
| 1244Z | 10.5N | 121.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 188 | -29.22 | 06 14 58 Z | 07 04 Z | No | | | |
| 189 | -54.54 | 07 56 43 Z | 08 44 Z | No | | | |
| 190 | -79.87 | 09 58 30 Z | 10 24 Z | No | | | |
| 195 | 153.51 | 18 07 20 Z | 18 12 Z | No | | | |
| 196 | 128.19 | 19 49 13 Z | 19 55 Z | No | | | |
| 197 | 102.87 | 21 31 00 Z | 21 38 Z | No | | | |

Disturbance #2 (Western Pacific) - 0103Z to 1142Z (4/84/75)



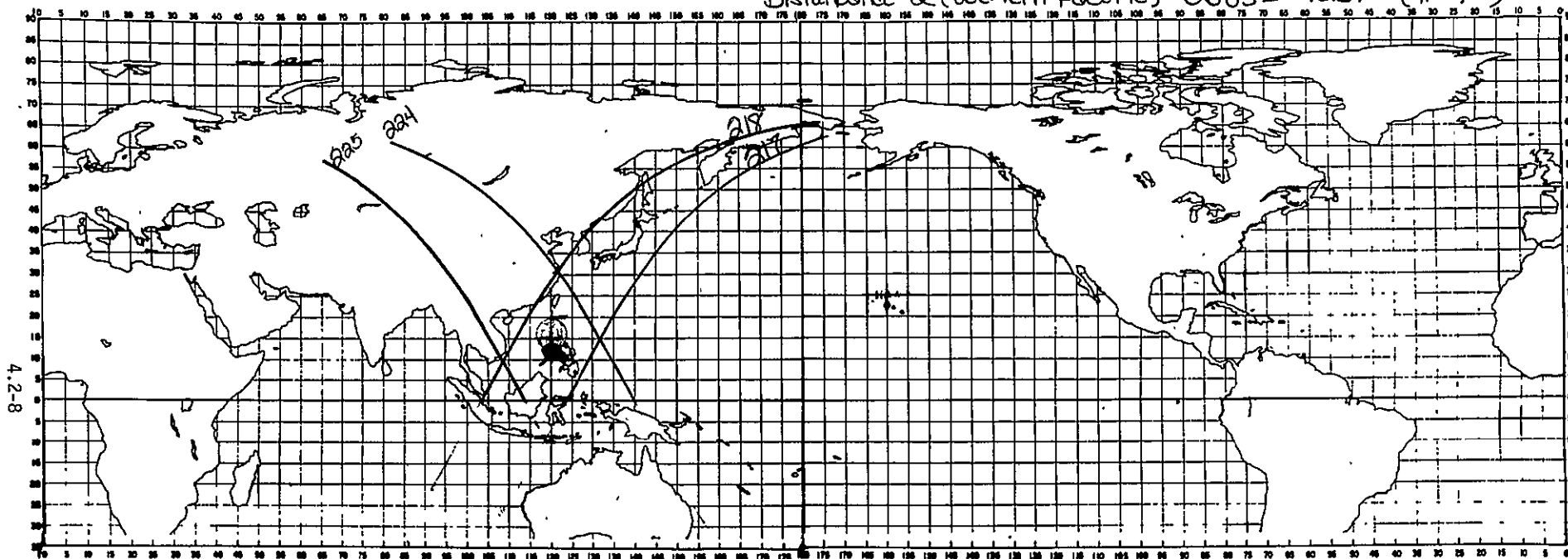
4.2-7

LOCATION TROPICAL DEPRESSION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0103Z | 12.0N | 121.0E |
| 1142Z | 11.0N | 120.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 803 | -49.07 | 07 41 43 Z | 08 30 Z | Do | | | |
| 804 | -74.40 | 09 23 30 Z | 10 09 Z | Do | | | |
| 210 | 133.66 | 19 34 13 Z | 19 38 Z | Do | | | |
| 811 | 108.34 | 21 16 00 Z | 21 18 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance #2 (Western Pacific) - 0003Z - 1237Z (4/25/75)

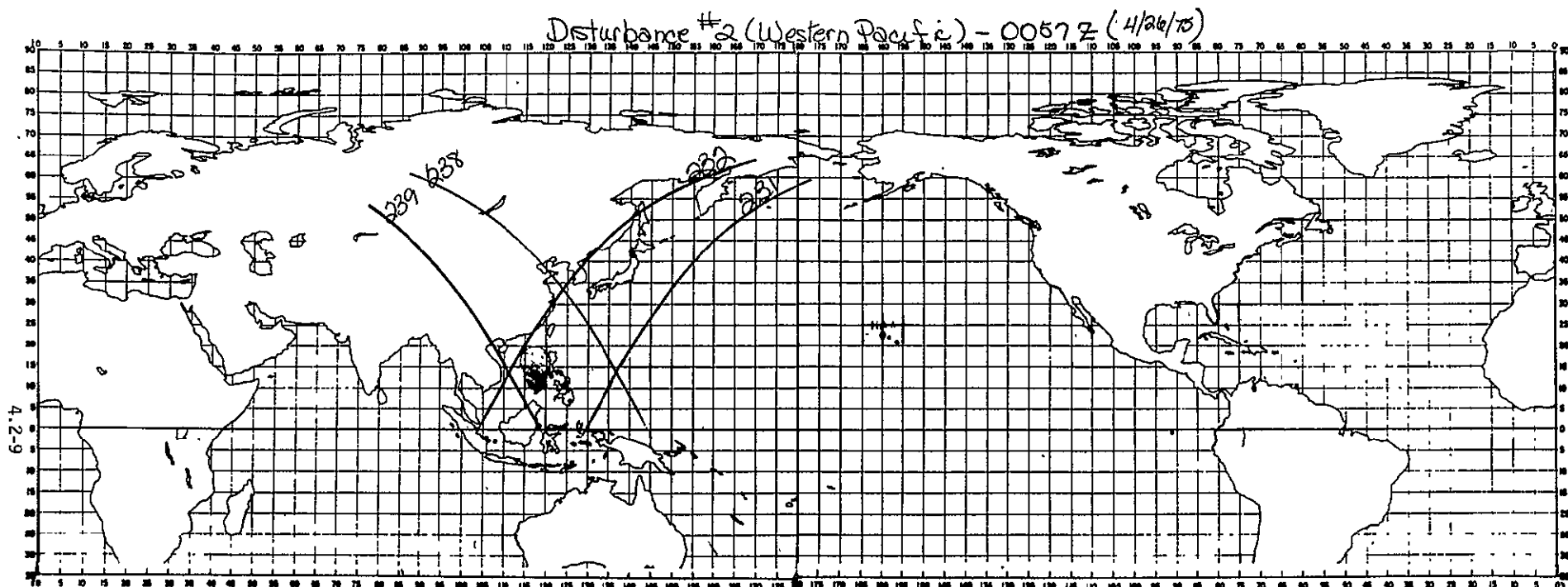


4.2-8

LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0003Z | 11.5N | 120.3E |
| 1237Z | 11.0N | 119.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 217 | -48.60 | 07 26 43 Z | 08 15 Z | No | | | |
| 218 | -63.92 | 09 08 30 Z | 09 54 Z | No | | | |
| 224 | 139.13 | 19 19 13 Z | 19 25 Z | No | | | |
| 225 | 113.81 | 21 01 00 Z | 21 03 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

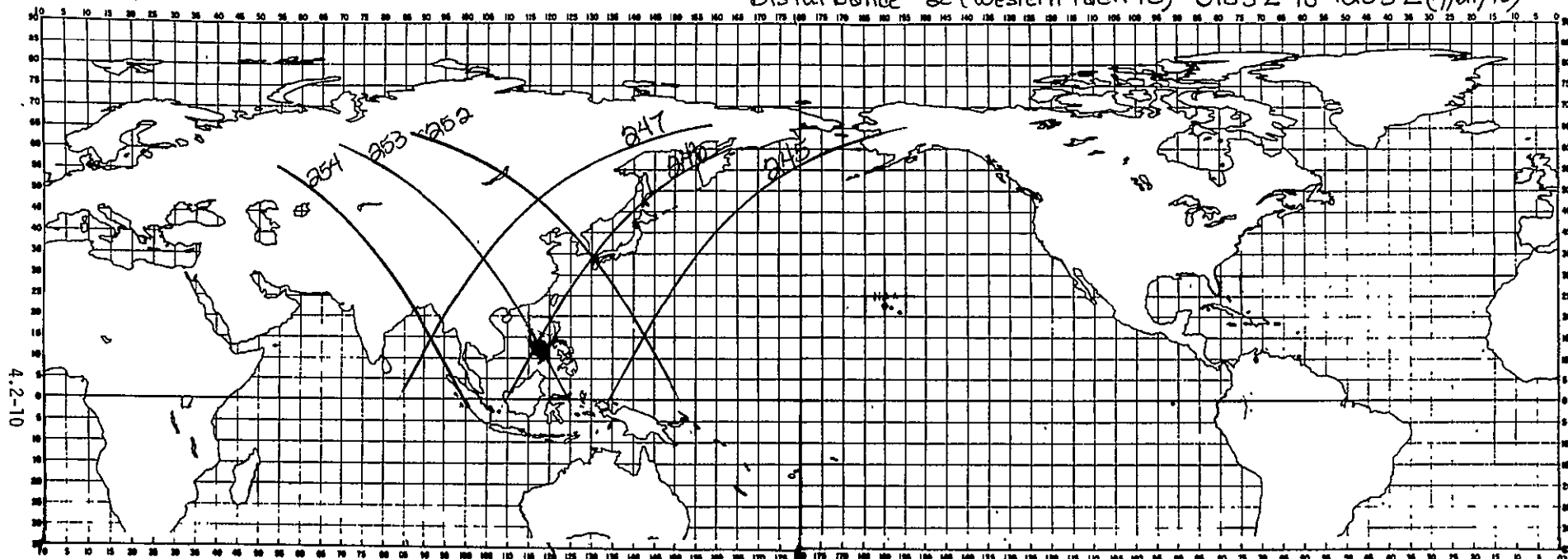


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0057Z | 11.3N | 117.2E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 231 | -38.13 | 07 11 43 Z | 08 01 Z | On | | | |
| 232 | -63.45 | 08 53 30 Z | 09 39 Z | On | | | |
| 238 | 144.61 | 19 04 12 Z | 19 10 Z | On | | | |
| 239 | 119.28 | 20 46 00 Z | 20 49 Z | On | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance #2 (Western Pacific) - 0153Z to 1253Z (4/27/75)

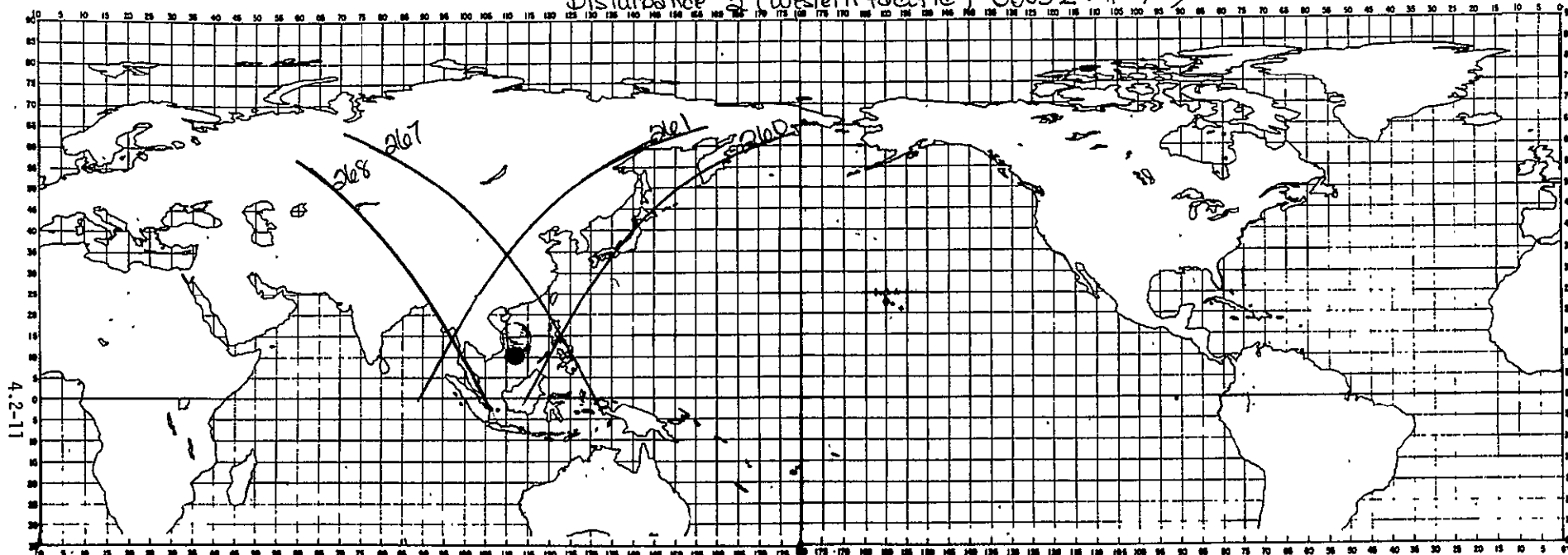


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0153Z | 11.8 N | 113.9E |
| 1253Z | 12.0 N | 112.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 245 | -32.65 | 06 56 42 Z | 07 45 Z | No | | | |
| 246 | -57.98 | 08 38 30 Z | 09 35 Z | No | | | |
| 247 | -83.30 | 10 20 17 Z | 11 06 Z | No | | | |
| 252 | 150.08 | 18 49 12 Z | 18 53 Z | No | | | |
| 253 | 124.76 | 20 30 59 Z | 20 35 Z | No | | | |
| 254 | 99.43 | 22 12 47 Z | 22 15 Z | No | | | |

Disturbance #2 (Western Pacific) - 0053 Z (4/28/75)



4.2-11

LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0053Z | 10.0N | 112.0E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIT.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 267 | 130.23 | 20 15 59 Z | 20 21 Z | No | | | |
| 268 | 104.91 | 21 57 46 Z | 22 00 Z | No | | | |
| 260 | -52.51 | 08 23 29 Z | 09 11 Z | No | | | |
| 261 | -77.83 | 10 05 16 Z | 10 50 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

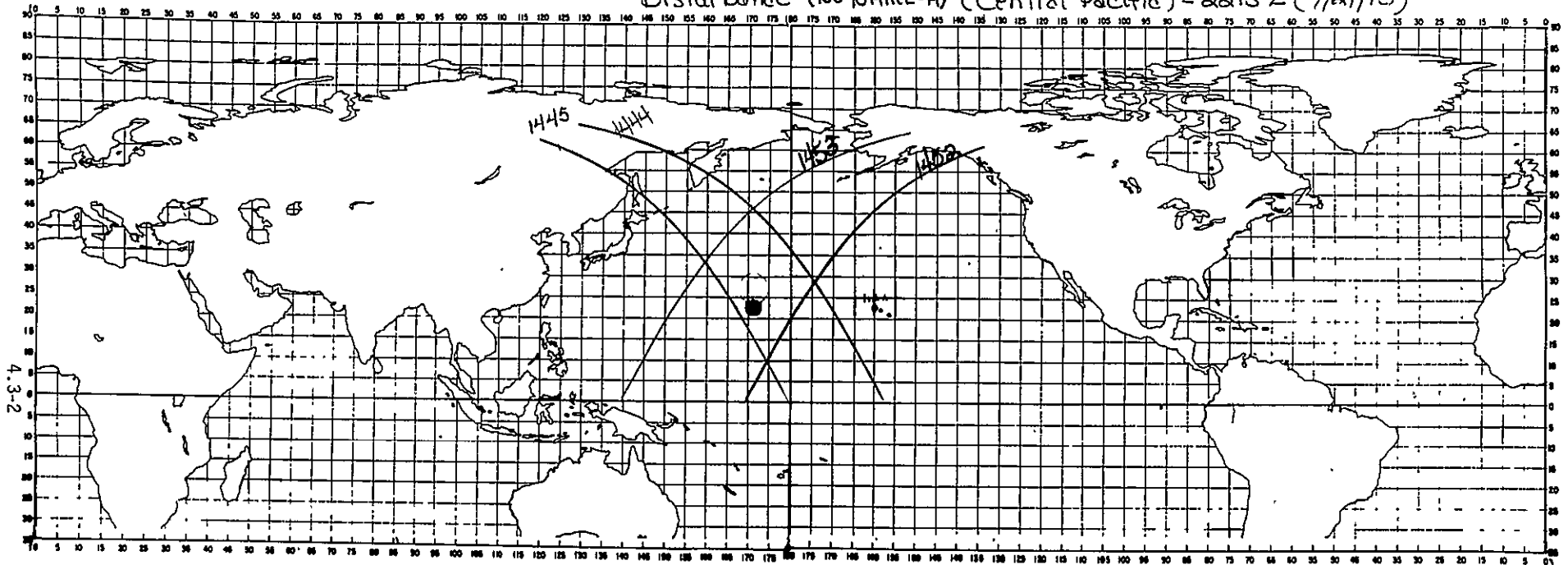
- DISTURBANCE:- NO NAME-A* (CENTRAL PACIFIC)

DATE: JULY 21 - JULY 25, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|---------------|-----------------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 7/21 | 2215Z | 23.0N | 171.0E | | | |
| 7/22 | 0904Z 2114Z | 24.2N 27.0 | 169.2E 169.0 | | | |
| 7/23 | 0323Z 2210Z | 29.0N 27.3 | 166.9E 163.2 | | | |
| 7/24 | 2304Z | 31.8N | 162.0E | | | |
| 7/25 | 0958Z | 34.0N | 164.0E | | | |

*
Not carried by Guam

Disturbance (NO NAME-A) (Central Pacific) - 2215 Z (7/21/75)

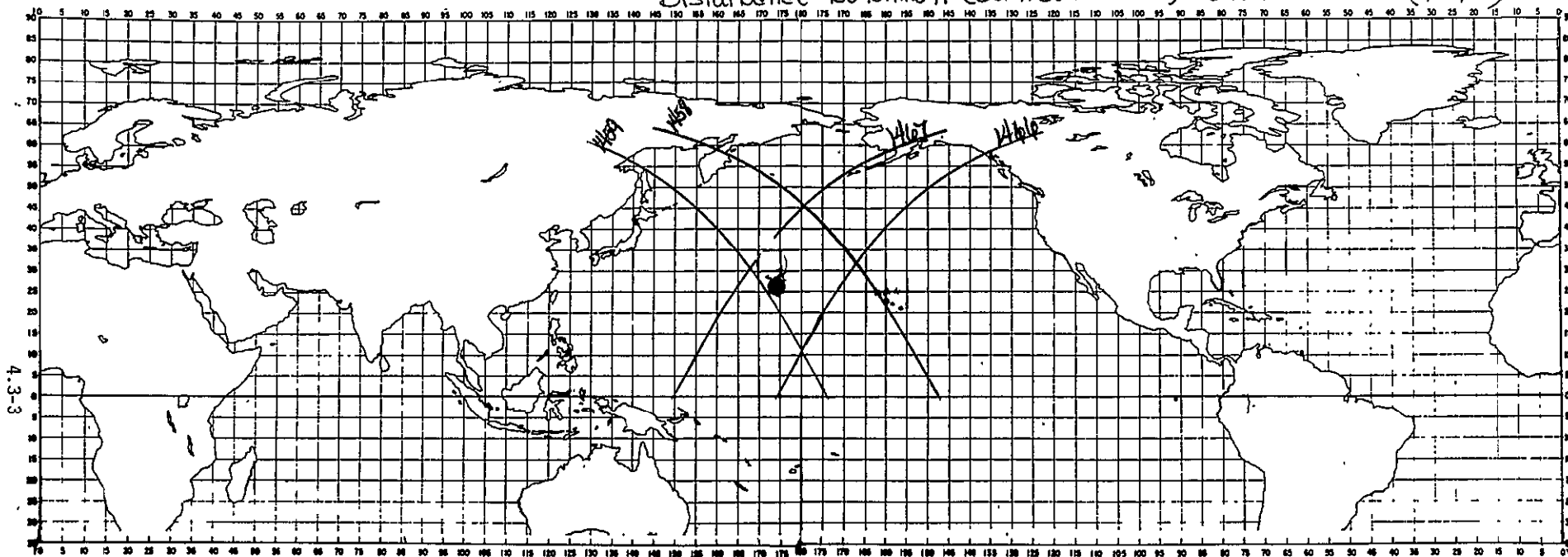


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2215Z | 23.0N | 171.0E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1444 | -158.27 | 00 56 57 Z | 01 07 Z | Do | | | |
| 1445 | 179.40 | 02 38 44 Z | 03 46 Z | Do | | | |
| 1452 | 2.14 | 14 31 14 Z | 15 16 Z | Do | | | |
| 1453 | -23.18 | 16 13 01 Z | 16 55 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

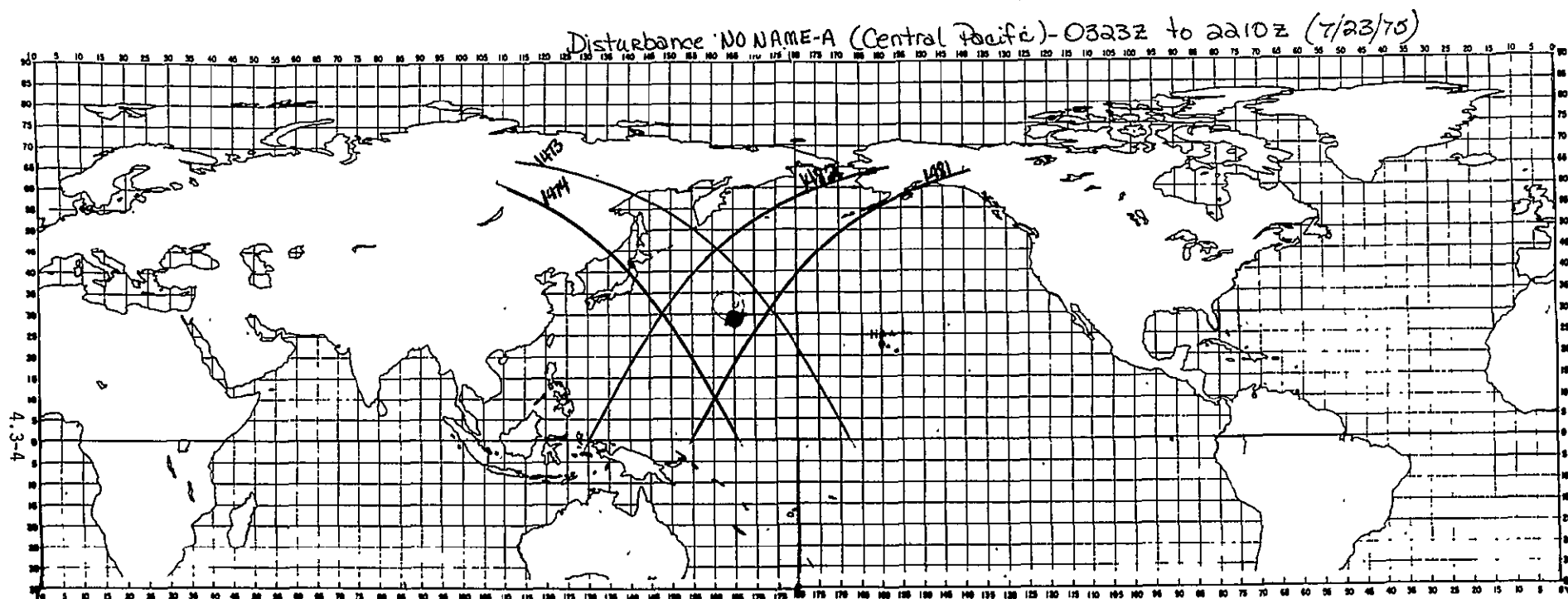
Disturbance NO NAME-A (Central Pacific) - 0904Z to 2114Z (7/63/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0904Z | 24.2N | 169.2E |
| 2114Z | 27.0N | 169.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1458 | -149.80 | 00 41 57 Z | 00 54 Z | Do | | | |
| 1459 | -175.12 | 02 23 44 Z | 02 32 Z | Do | | | |
| 1466 | 7.61 | 14 16 14 Z | 15 00 Z | Do | | | |
| 1467 | -17.71 | 15 59 01 Z | 16 41 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

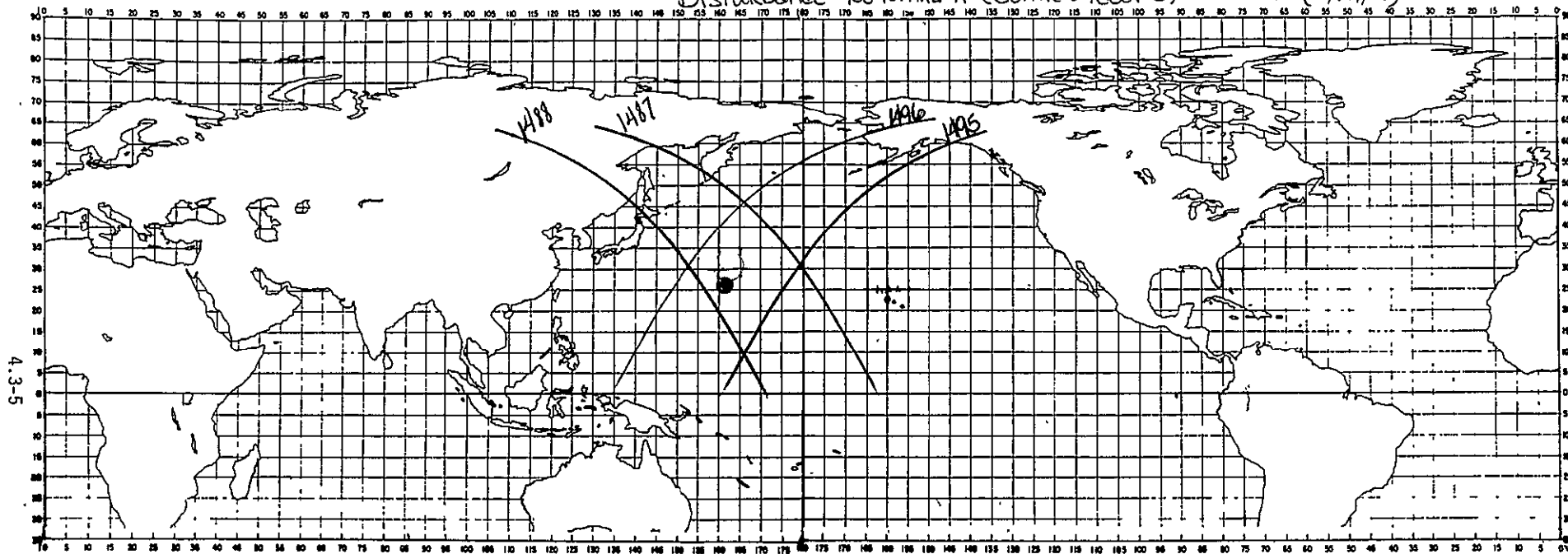


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0323Z | 29.0N | 166.9E |
| 2210Z | 27.3N | 163.2E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1473 | -169.85 | 02 09 43 Z | 02 20 Z | No | | | |
| 1474 | 165.03 | 03 50 30 Z | 03 58 Z | No | | | |
| 1491 | -12.23 | 15 43 00 Z | 16 23 Z | No | | | |
| 1482 | -37.56 | 17 24 47 Z | 18 10 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance No NAME-A (Central Pacific) - 2304 Z (7/24/75)

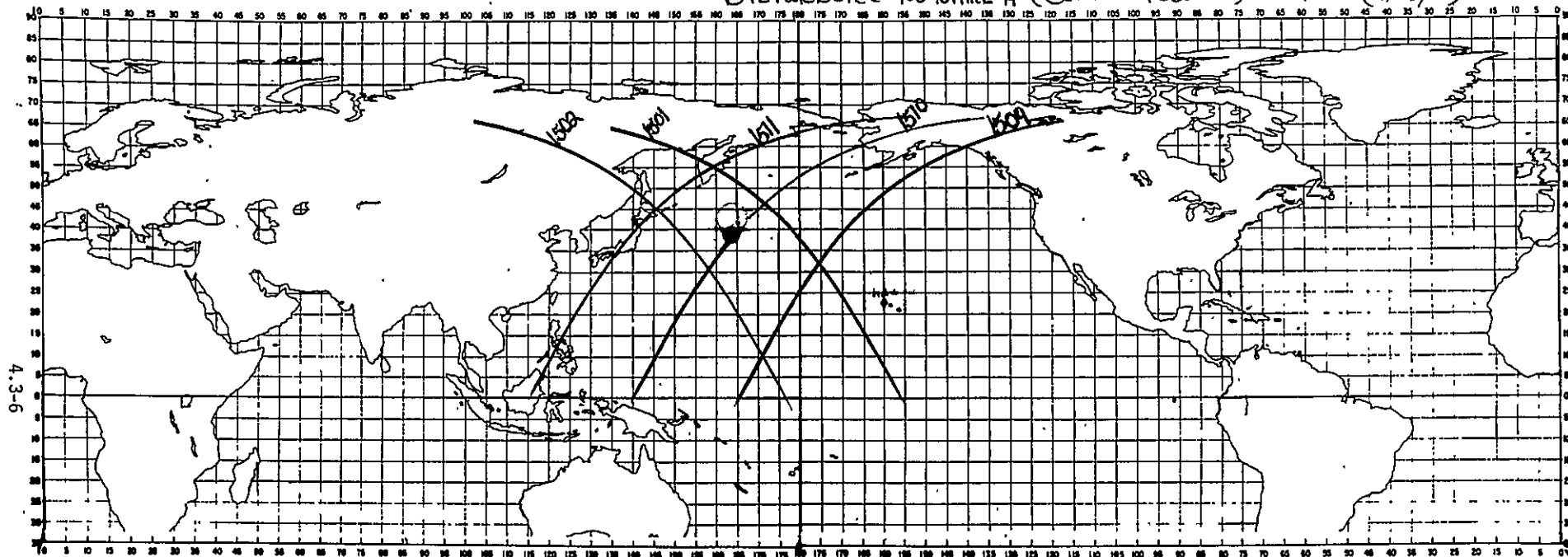


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2304Z | 31.8N | 162 DE |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1487 | -164.18 | 01 53 43 Z | 02 05 Z | No | | | |
| 1488 | 170.50 | 03 35 30 Z | 03 43 Z | No | | | |
| 1495 | -6.76 | 15 27 59 Z | 16 14 Z | 162028 | 163623 | 302 | 399 |
| 1496 | -32.03 | 17 09 46 Z | 17 51 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance NO NAME-A (Central Pacific) - 0958Z (7/85/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0958Z | 34.0N | 164.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1501 | -158.70 | 01 38 42 Z | 01 54 Z | No | | | |
| 1502 | 175.97 | 03 20 29 Z | 03 31 Z | No | | | |
| 1509 | -1.29 | 15 12 59 Z | 15 55 Z | No | | | |
| 1510 | -26.61 | 16 54 46 Z | 17 34 Z | No | | | |
| 1511 | -51.94 | 18 36 33 Z | 19 15 Z | No | | | |
| | | | | | | | |

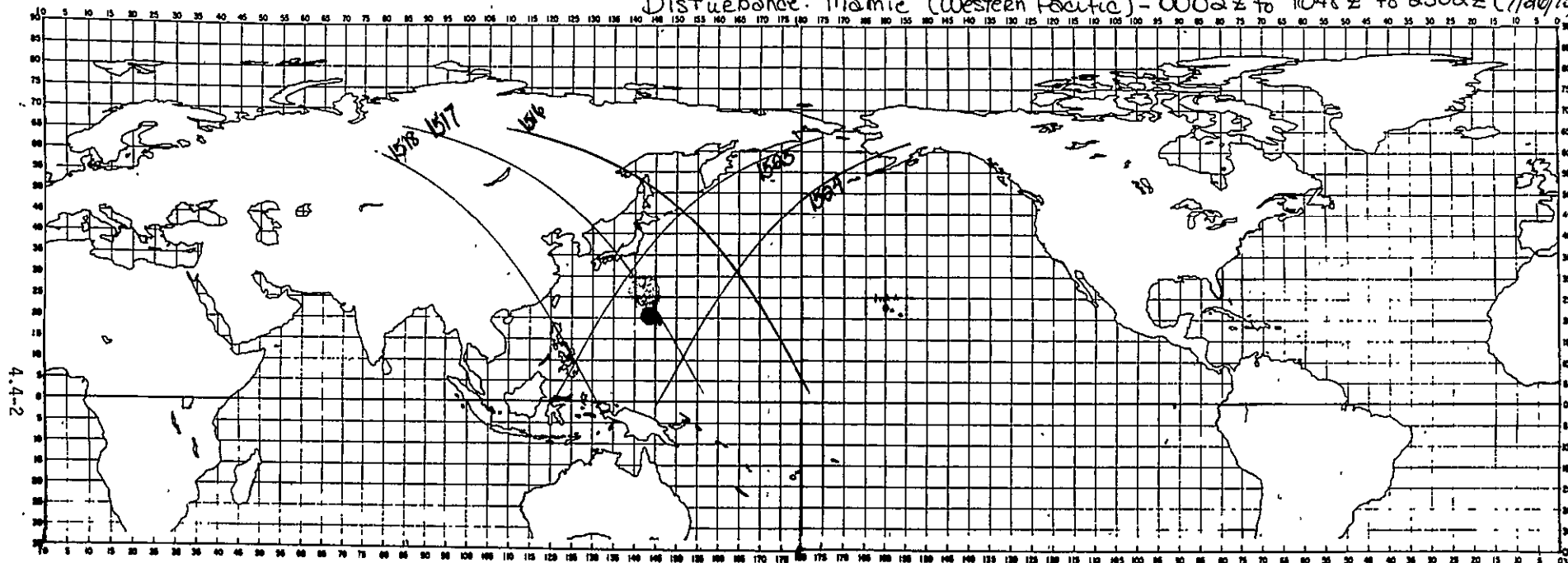
DISTURBANCE: "MAMIE" (WESTERN PACIFIC)

DATE: JULY 26 - JULY 30, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------|----------|-----------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 7/26 | 0002Z | 19.0N | 145.35E | | | |
| | 1048Z | 20.7 | 144.0 | | | |
| | 2302Z | 21.5 | 143.0 | | | |
| 7/27 | 1438Z | 23.2N | 139.0E | | | |
| | 2356Z | 23.5 | 139.6 | | | |
| 7/28 | 1045Z | 24.5N | 137.5E | | | |
| | 2255Z | 26.0 | 135.5 | | | |
| 7/29 | 1140Z | 26.0N | 131.5E | | | |
| | 2349Z | 31.0 | 130.0 | | | |
| 7/30 | 1041Z | 33.0N | 129.0E | | | |

NOTE: See track map, page 4.1-7.

Disturbance "Mamie" (Western Pacific) - 0002Z to 1048Z to 2302Z (7/26/75)

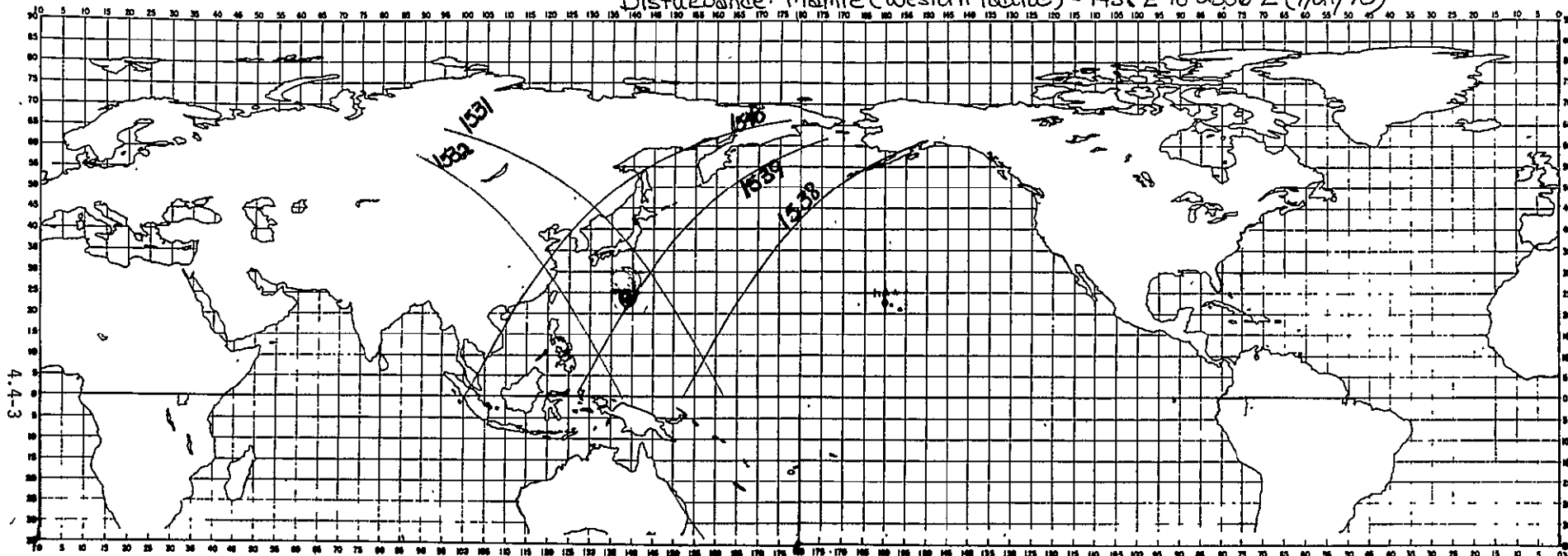


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0002Z | 19.0N | 145.35E |
| 1048Z | 20.7N | 144.0E |
| 2302Z | 21.5N | 143.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1516 | -178.55 | 03 05 49 Z | 03 15 Z | No | | | |
| 1517 | 156.13 | 04 47 15 Z | 04 53 Z | No | | | |
| 1518 | 130.80 | 06 29 02 Z | 06 33 Z | No | | | |
| 1524 | -21.14 | 16 39 24 Z | 17 25 Z | No | | | |
| 1525 | -46.46 | 18 21 32 Z | 19 06 Z | No | | | |
| | | | | | | | |

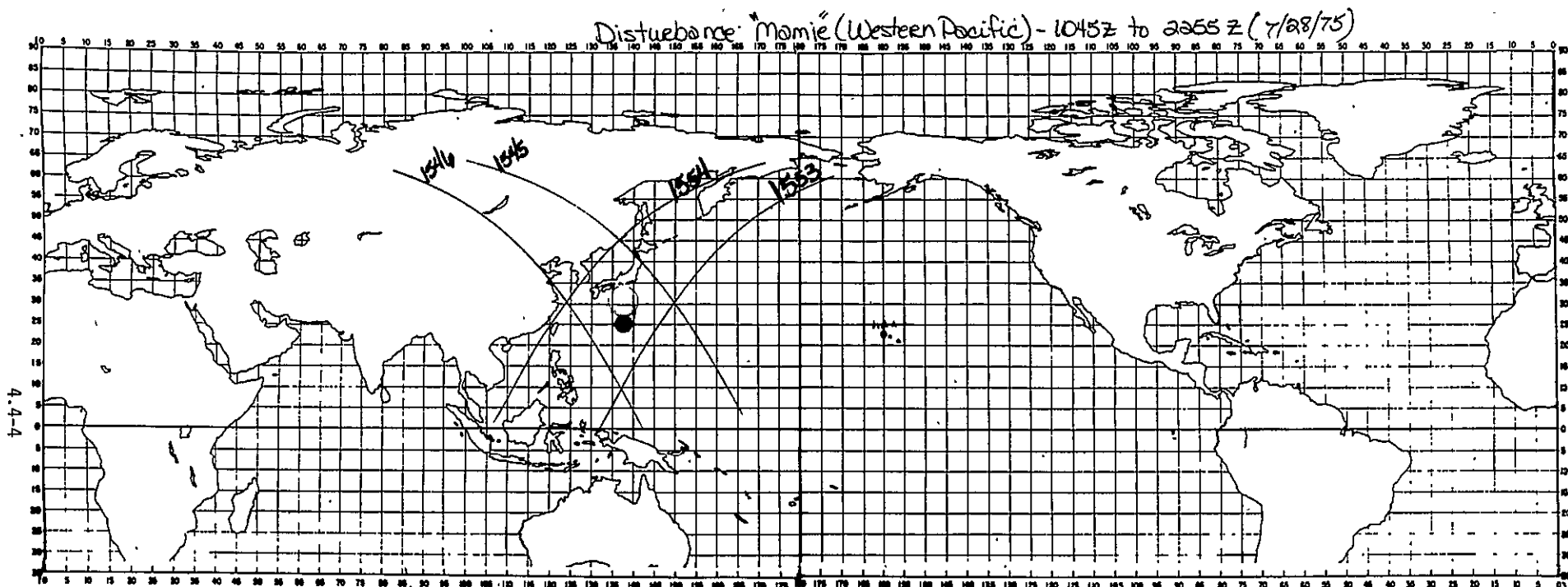
Disturbance: "Marie" (Western Pacific) - 1438 Z to 2356 Z (7/27/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1438Z | 23.2N | 139.0E |
| 2356Z | 23.5N | 139.6E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1531 | 161.60 | 04 32 15 Z | 04 41 Z | No | | | |
| 1532 | 136.28 | 06 14 02 Z | 06 20 Z | No | | | |
| 1538 | -15.67 | 16 24 45 Z | 17 12 Z | No | | | |
| 1539 | -40.09 | 18 06 32 Z | 18 51 Z | No | | | |
| 1540 | -66.31 | 19 48 19 Z | 20 29 Z | No | | | |
| | | | | | | | |

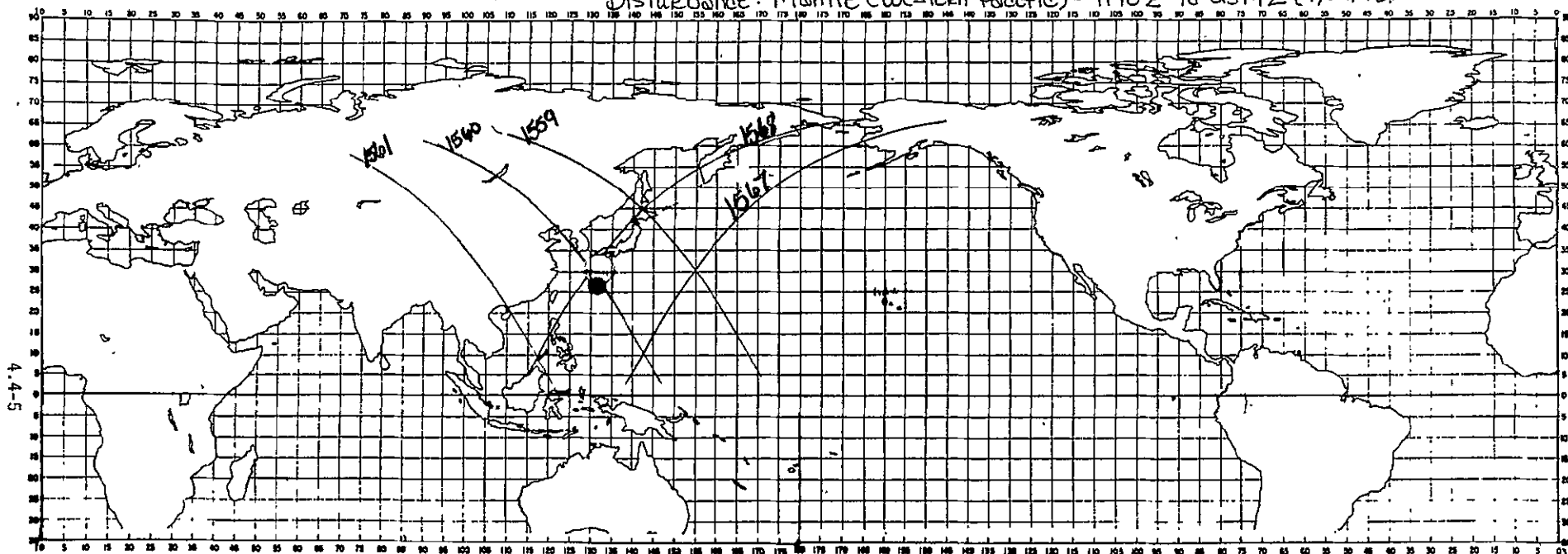


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1045Z | 24.5N | 137.5E |
| 2255Z | 26.0N | 135.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1545 | 167.07 | 04 17 14 Z | 04 27 Z | Do | | | |
| 1546 | 141.75 | 05 59 01 Z | 06 06 Z | Do | | | |
| 1553 | -35.51 | 17 51 31 Z | 18 36 Z | Do | | | |
| 1554 | -60.84 | 19 53 15 Z | 20 14 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

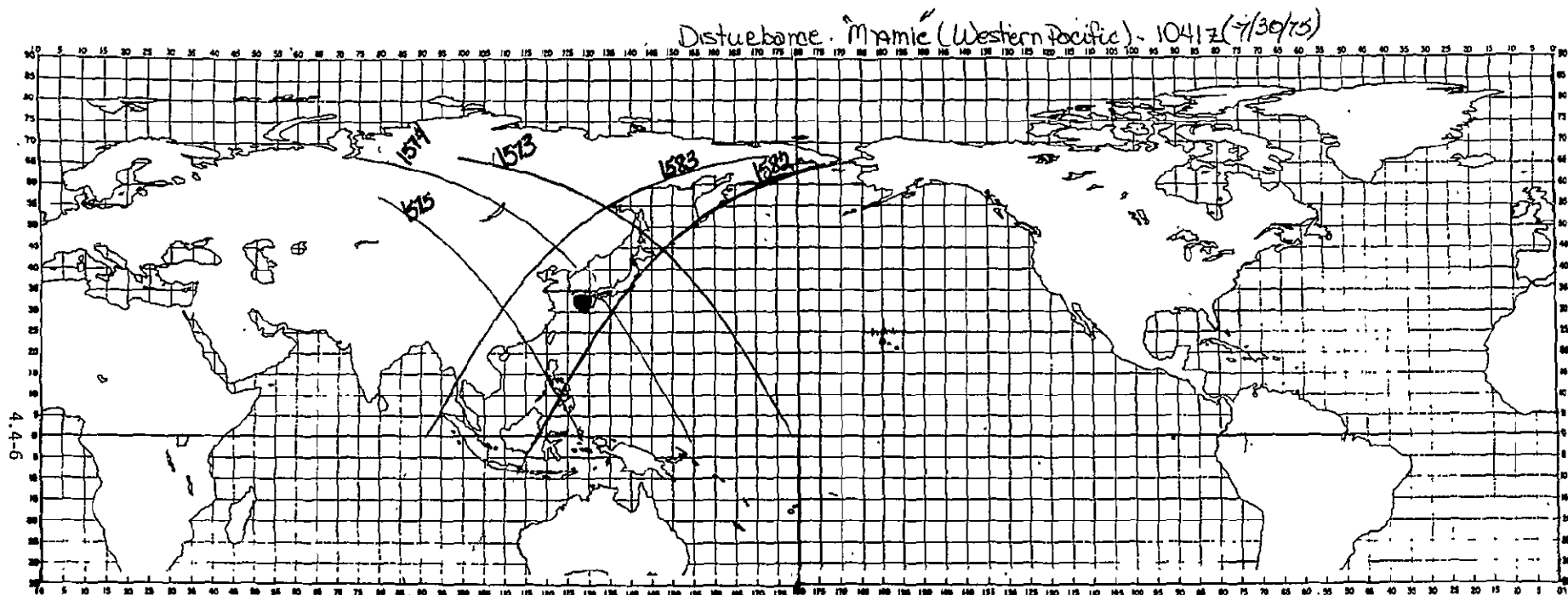
Disturbance: "Mamie" (Western Pacific) - 1140Z to 2349Z (7/29/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1140Z | 26.0N | 131.5E |
| 2349Z | 31.0N | 130.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1559 | 172.54 | 04 02 14 Z | 04 15 Z | Do | | | |
| 1560 | 147.82 | 05 44 01 Z | 05 57 Z | Do | | | |
| 1561 | 121.90 | 07 25 48 Z | 07 32 Z | Do | | | |
| 1567 | -30.04 | 17 36 30 Z | 18 21 Z | Do | | | |
| 1568 | -55.36 | 19 18 17 Z | 20 00 Z | 195749 | 200531 | 802 | 453 |



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1041z | 33.0N | 129.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1573 | 178.02 | 03 47 13 Z | 04 02 Z | No | | | |
| 1574 | 152.70 | 05 29 00 Z | 05 40 Z | No | | | |
| 1575 | 127.37 | 07 10 47 Z | 07 19 Z | No | | | |
| 1582 | -49.39 | 19 03 17 Z | 19 45 Z | 194330 | 195240 | 803 | 469 |
| 1583 | -76.21 | 20 46 04 Z | 21 23 Z | No | | | |
| | | | | | | | |

TYPHOON NINA

(July 31 - August 4, 1975)

Meteorological History/Data

As Tropical Storm Mamie dissipated and drifted toward Korea, the monsoon trough migrated northward leaving a well-defined trough line extending south-eastward from the remains of Mamie into the Philippine Sea. A tropical disturbance spawned in this trough near 20N 137E on 29 July and rapidly developed into Typhoon Nina, one of the most destructive storms of the 1975 season.

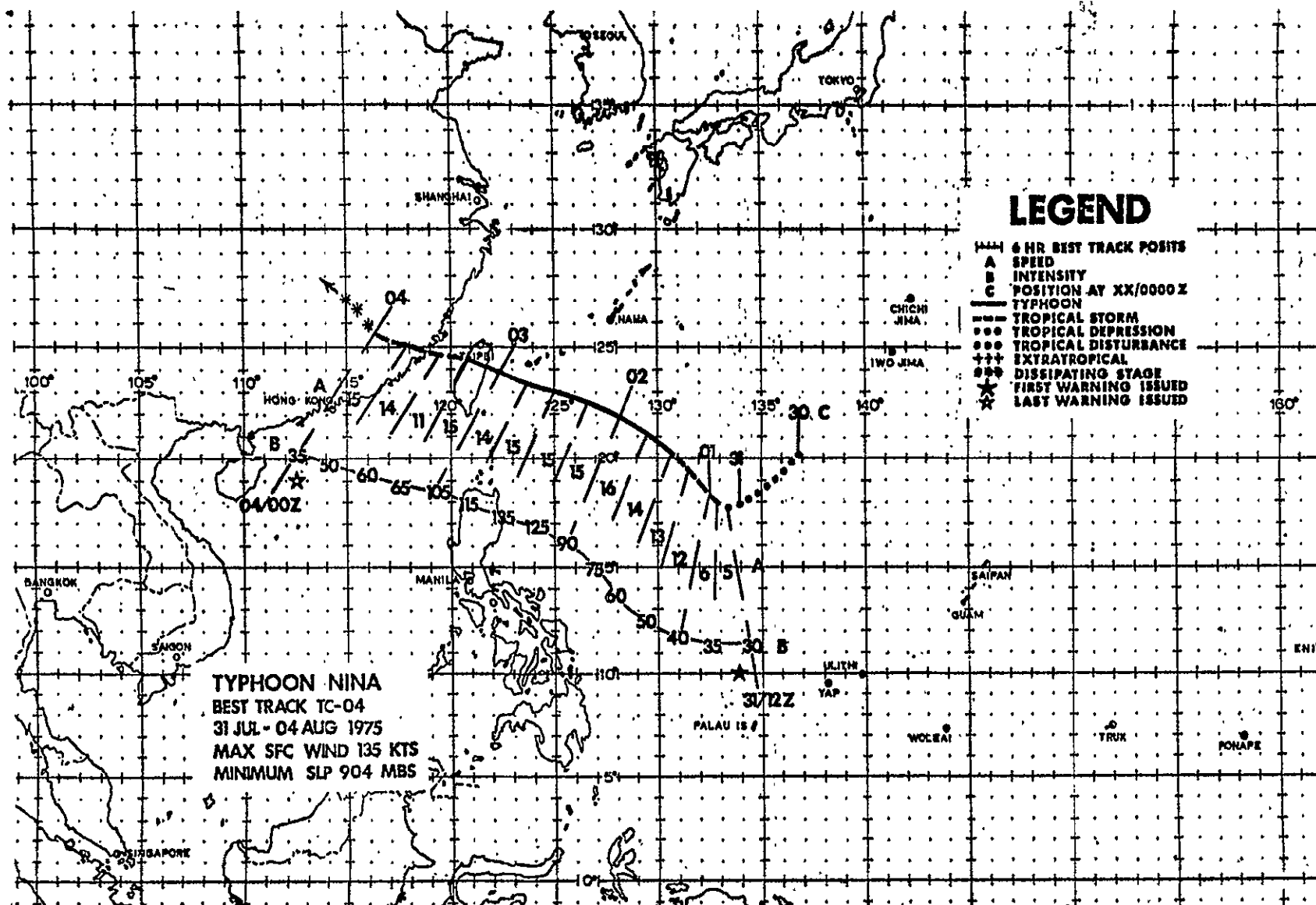
After initial detection by satellite and classification as a tropical disturbance, TD-04 moved southwestward for approximately 36 hours as surface and upper-air circulations became organized and vertically aligned. By 1200Z on the 31st the system slowed, intensified rapidly to tropical storm strength, and began turning to the northwest. As the storm made this turn, it responded to midtropospheric steering flow and accelerated along the equatorward periphery of the 500 mb subtropical ridge. Continued building of the subtropical ridge to the west forced Nina to take a west-northwesterly track toward Taiwan just prior to reaching typhoon intensity on 1 August.

Nina underwent explosive deepening late on 1 August. Aircraft reconnaissance data indicated a 63 mb drop in sea level pressure at the typhoon center between August 1 at 1437Z and August 2 at 0830Z, with maximum surface winds increasing from 65 knots to 130 knots during that period. A peak intensity of 135 knots was attained on the 2nd at 1200Z, approximately 200nm east of Taiwan. The typhoon slowly decreased in intensity while approaching the island, making landfall near the coastal city of Hualien on the 3rd at 0300Z with maximum surface winds of 100 kt.

Nina entered the Formosa Straits with minimal typhoon strength, and weakened to approximately 60 knots before striking the China mainland on the 3rd at 1500Z. Nina moved inland and lost tropical cyclone characteristics on the 4th of August.

Damage/Deaths

Much of the typhoon's strength was lost as it battered across Taiwan's central mountain range, fortunately sparing the most populous areas from the more intensive winds near the eye. Nevertheless, Nina's trek across Taiwan reportedly left 25 people dead, 4 missing and 168 injured. It was also reported that over 3,000 homes were at least partially collapsed, 39 fishing boats were sunk, and a 16,000 ton Korean freighter, THE SUN STAR, was capsized near Koahsiung harbor. Damage from flooding and landslides was widespread.

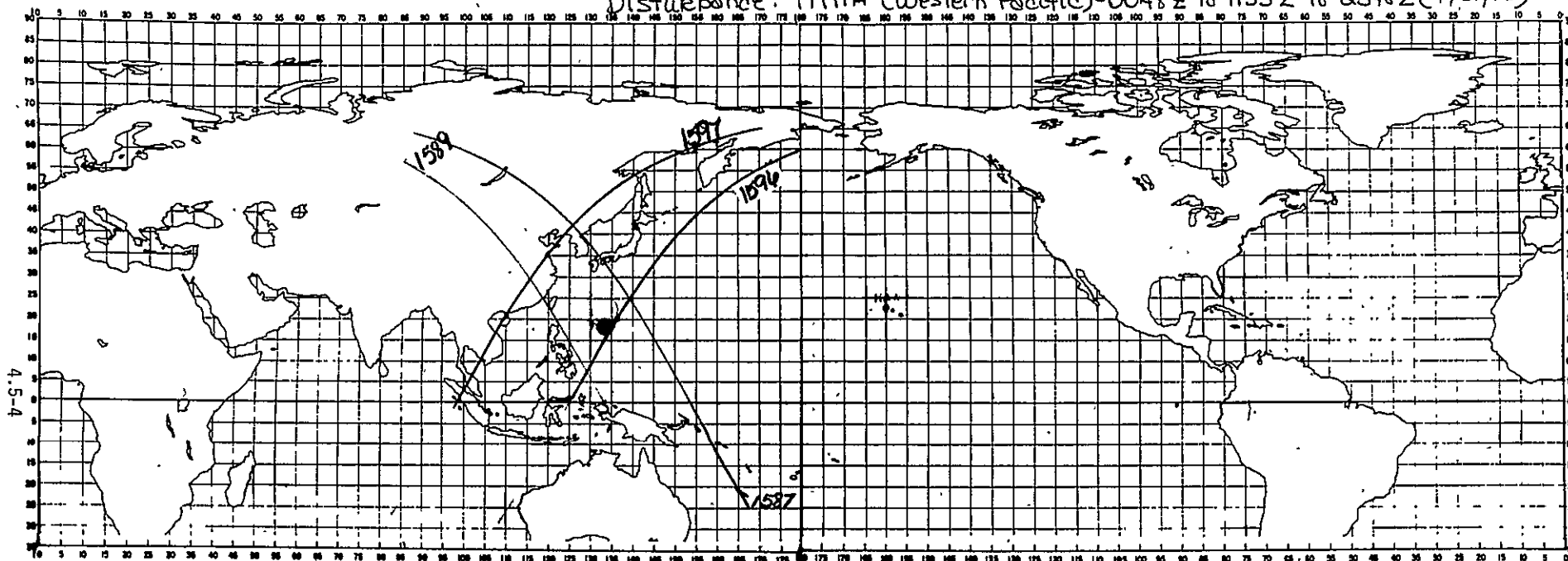


DISTURBANCE: "NINA" (WESTERN PACIFIC)

DATE: JULY 31 - AUGUST 3, 1975

| Date | Time GMT | Position | | Pressure (MB) ^a | Wind (KTS) | Stage |
|------|-------------|-----------------------------|-----------|-------------------------------|---------------|---------------------------------------|
| | | Latitude | Longitude | | | |
| 7/31 | 0048Z | 17.2N | 134.2E | | | Tropical Depression Tropical Storm |
| | 1133Z | 17.5 | 132.7 | | | |
| | 2348Z | 17.1 | 132.0 | | | |
| 8/1 | 1228Z | 20.0N | 130.5E | | | Typhoon |
| 8/2 | 0042Z | 21.8N | 127.1E | | | |
| | 1130Z | 23.2 | 125.1 | | | |
| 8/3 | 0136Z | 23.4N (Within 1° Taiwan) | 122.2E | | | |
| | 1225Z | 24.5 (Over Land) | 118.0 | | | |

Disturbance: "Nina" (Western Pacific)-0048z to 1133z to 2348z (7/31/75)



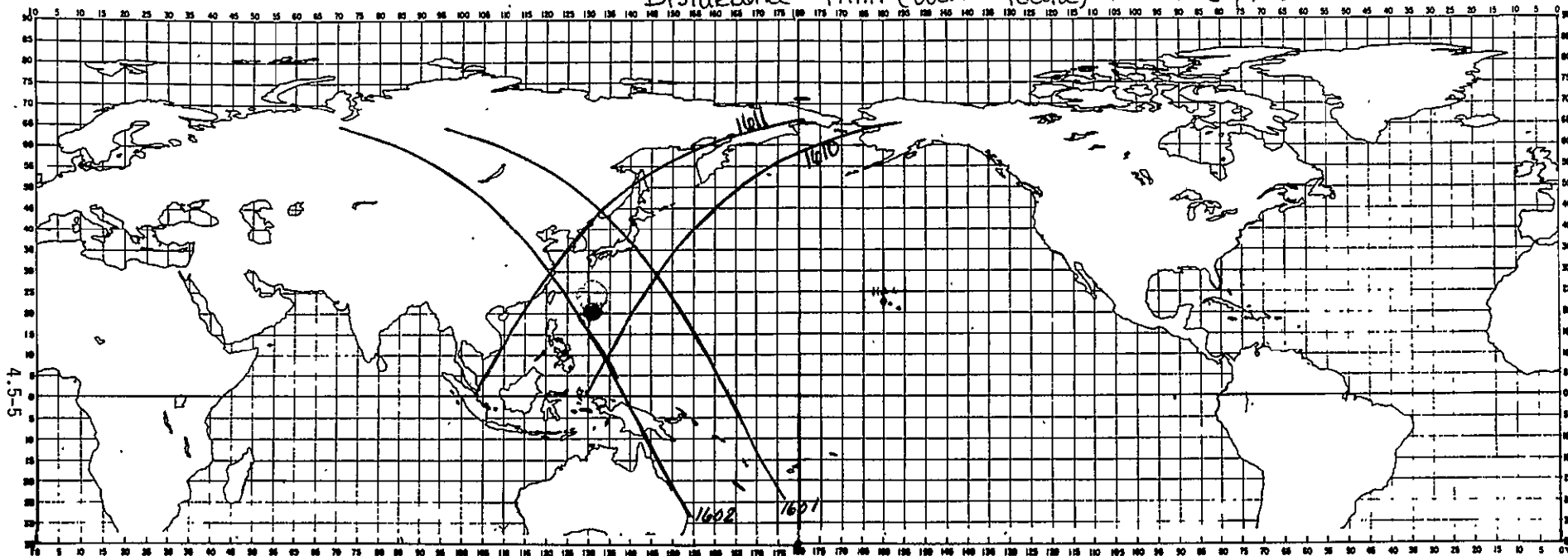
LOCATION

TROPICAL DEPRESS ION/TROPICAL STORM (1133z)

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0048z | 17.2N | 134.2E |
| 1133z | 17.5N | 132.7E |
| 2348z | 17.1N | 132.0E |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1587 | -176.50 | 03 32 12 Z | 05 19 Z | 051408 | 052509 | 802 | 473 |
| 1589 | 132.85 | 06 56 47 Z | 07 02 Z | No | | | |
| 1596 | -42.11 | 18 43 16 Z | 19 29 Z | No | | | |
| 1597 | -121.74 | 20 30 03 Z | 20 35 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Nina" (Western Pacific) - 1228 Z (8/1/75)

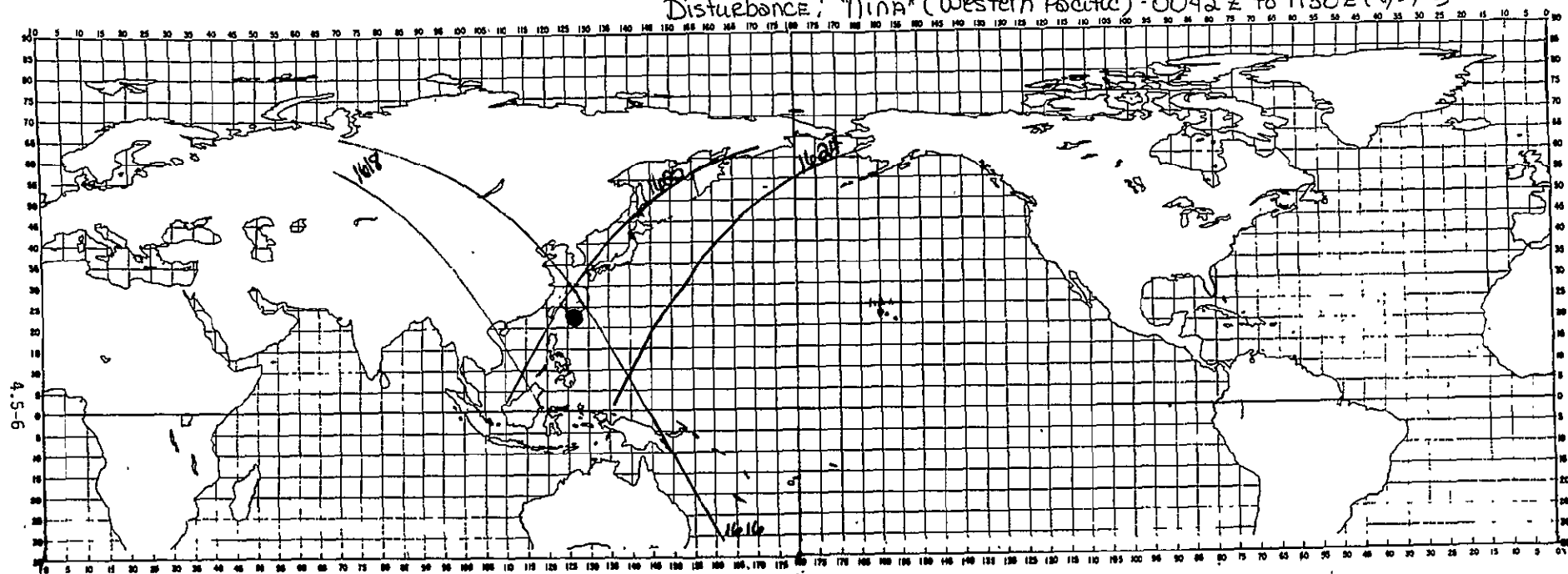


LOCATION
TYPHOON

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1228Z | 20.0N | 130.5E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1601 | -171.03 | 03 17 12 Z | 05 08 Z | 050705 | 050721 | 802 | 489 |
| 1602 | 163.64 | 04 58 59 Z | 06 47 Z | 064006 | 064927 | 802 | 491 |
| 1610 | -38.94 | 18 33 18 Z | 19 19 Z | No | | | |
| 1601 | -64.25 | 20 15 03 Z | 20 58 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Nina" (Western Pacific) - 0042Z to 1130Z (8/2/75)

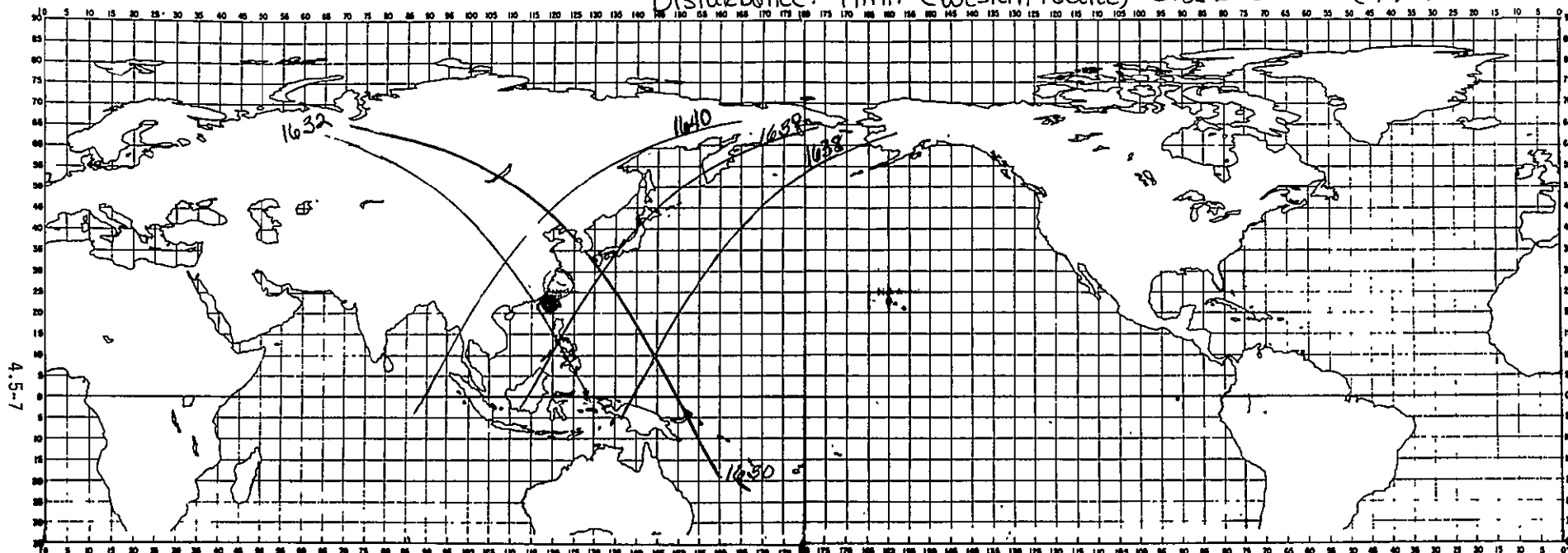


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0042Z | 21.8N | 127.1E |
| 1130Z | 23.2N | 125.1E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1616 | 169.11 | 04 43 58 Z | 06 33 Z | 062144 | 063537 | 802 | 505 |
| 1618 | 118.48 | 08 07 32 Z | 08 13 Z | No | | | |
| 1624 | -33.47 | 18 13 16 Z | 18 59 Z | No | | | |
| 1625 | -58.79 | 20 00 02 Z | 20 44 Z | 203934 | 204524 | 803 | 517 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Nina" (Western Pacific) - 0136Z to 1225Z (8/3/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0136Z | 23.4N | 122.2E |
| 1225Z | 24.5N | 118.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1630 | 174.59 | 04 28 57 Z | 06 19 Z | 060718 | 062131 | 802 | 524 |
| 1632 | 123.95 | 07 52 32 Z | 07 59 Z | No | | | |
| 1638 | -87.09 | 18 03 14 Z | 18 49 Z | No | | | |
| 1639 | -53.31 | 19 45 01 Z | 20 29 Z | No | | | |
| 1640 | -78.14 | 21 23 48 Z | 22 01 Z | No | | | |
| | | | | | | | |

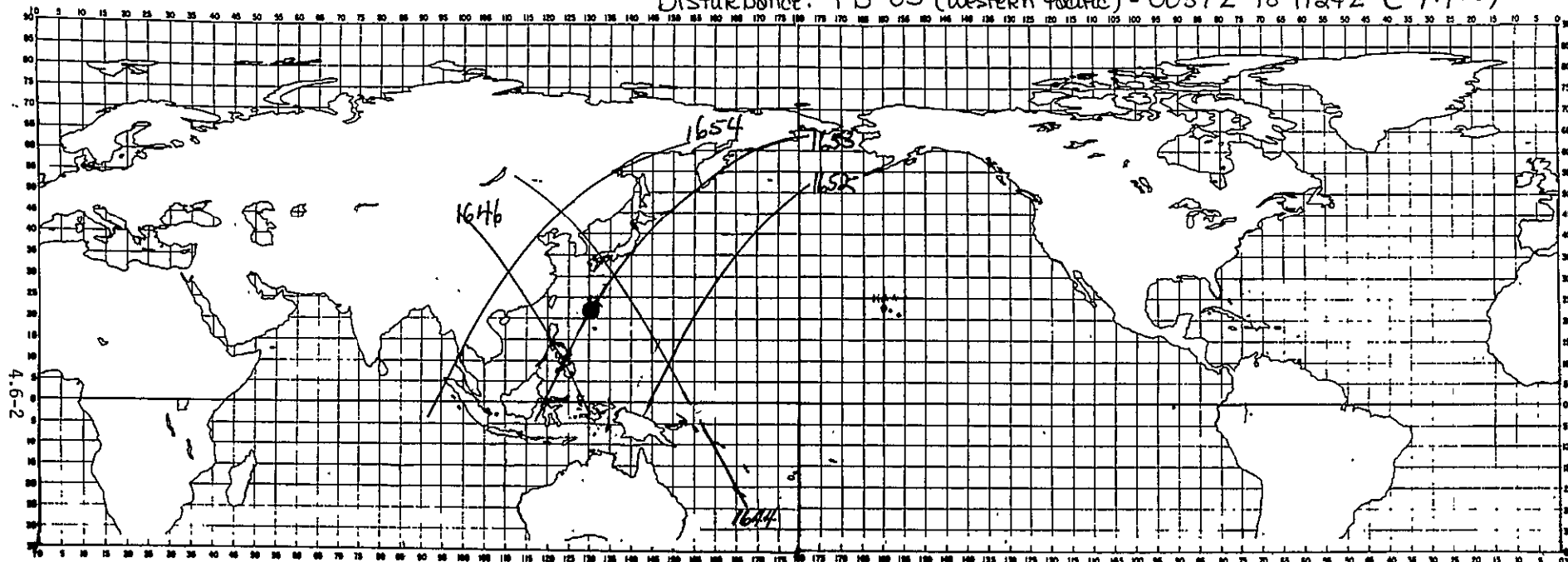
DISTURBANCE: TD-05 (WESTERN PACIFIC)

DATE: AUGUST 4 - AUGUST 6, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|---------------|-----------------|------------------|---------------|-------------------|
| | | Latitude | Longitude | | | |
| 8/4 | 0037Z 1124Z | 18.0N 22.5 | 131.5E 130.0 | | | |
| 8/5 | 1317Z 1228Z | 23.5N 24.0 | 127.5E 125.0 | | | |
| 8/6 | 0033Z 1119Z | 25.5N 23.5 | 122.5E 122.5 | | | No Classification |

NOTE: See track map, page 4.1-7

Disturbance: TD-05 (Western Pacific) - 0037Z to 1124Z (8/4/75)

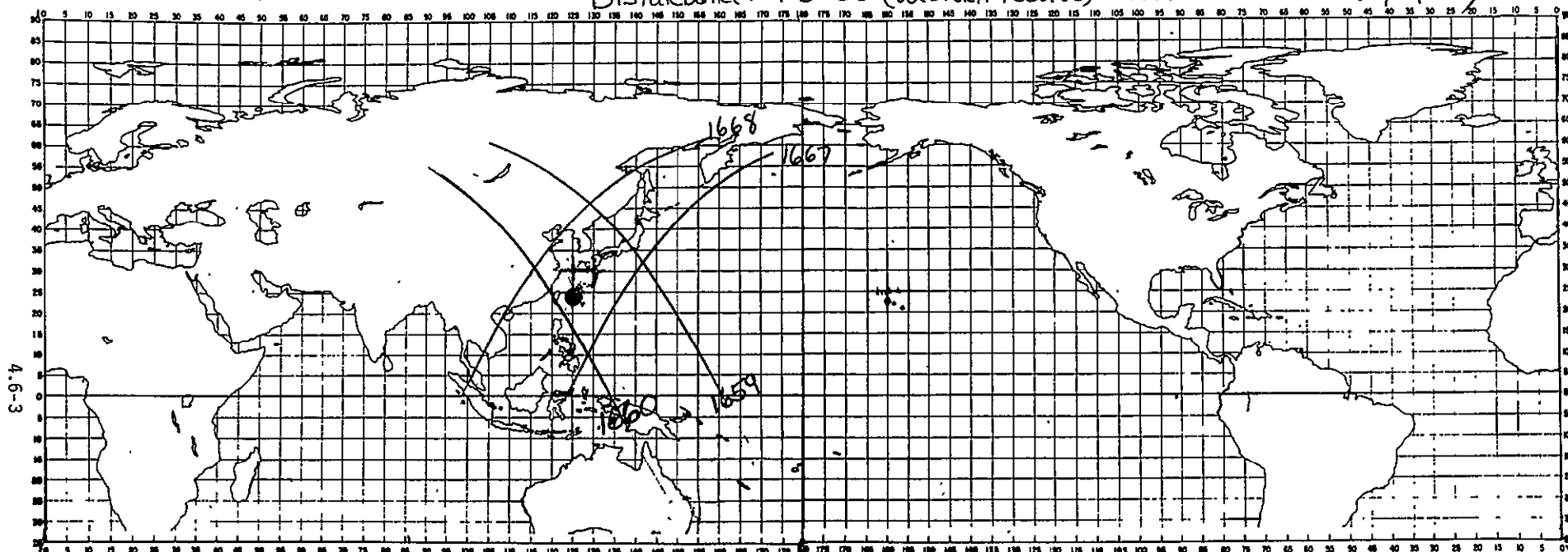


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0037Z | 18.0N | 131.5E |
| 1124Z | 22.5N | 130.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1644 | -179.93 | 04 13 57 Z | 0604Z | 055356 | 060718 | 802 | 4 |
| 1646 | +129.42 | 07 37 31 Z | 0733Z | No | | | |
| 1652 | -22.52 | 17 43 14 Z | 1830Z | No | | | |
| 1653 | -47.84 | 19 30 01 Z | 2014Z | No | | | |
| 1654 | -73.17 | 21 11 48 Z | 2156Z | No | | | |

Disturbance: TD-05 (Western Pacific) - 1317 Z to 1228 Z (8/5/75)

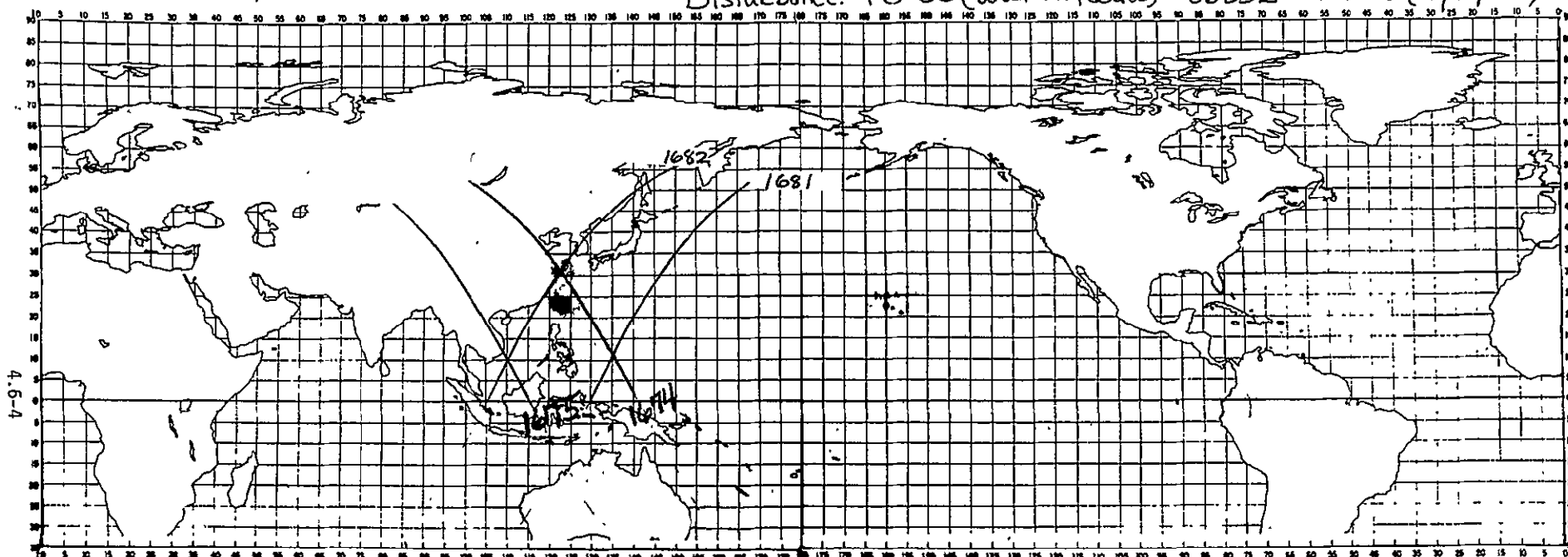


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1317Z | 23.5N | 127.5E |
| 1228Z | 24.0N | 125.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1659 | +160.22 | 05 40 43 Z | 0551Z | No | | | |
| 1660 | +134.90 | 07 22 30 Z | 0729Z | No | | | |
| 1667 | -42.36 | 19 15 00 Z | 2000Z | No | | | |
| 1668 | -67.69 | 20 56 47 Z | 2139Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: TD-05 (Western Pacific) - 0033Z to 1119Z (8/6/76)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0033Z | 25.5N | 122.5E |
| 1119Z | 23.5N | 122.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1674 | +140.37 | 07 07 30 Z | 0716 Z | Do | | | |
| 1675 | +115.05 | 08 49 17 Z | 0853 Z | Do | | | |
| 1681 | - 36.89 | 18 59 59 Z | 1947 Z | Do | | | |
| 1682 | - 62.61 | 20 41 46 Z | 2125 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON ORA

(August 9 - August 12, 1976)

Meteorological History/Data

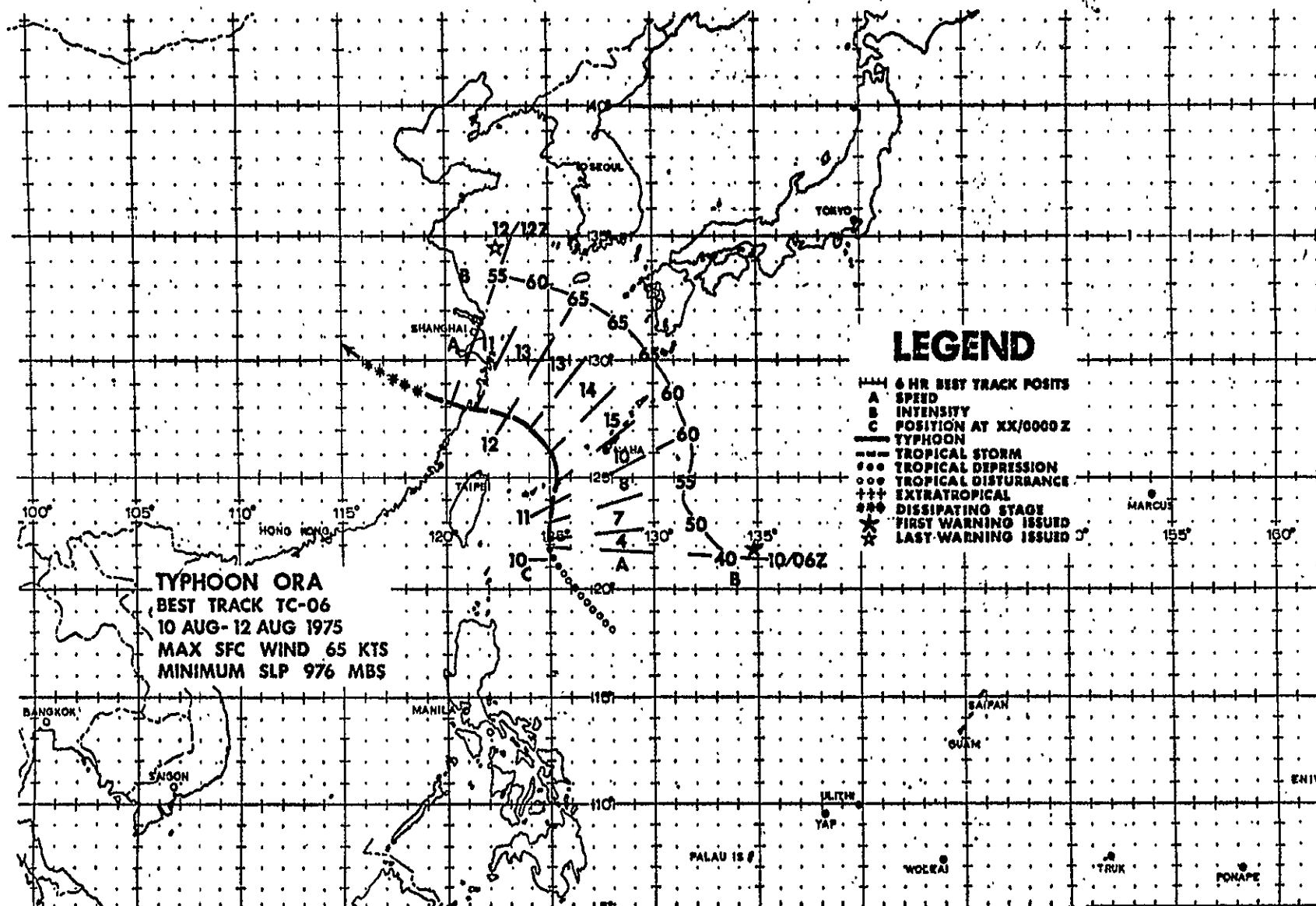
The third typhoon of the season, Ora, was small and short lived. Ora first appeared as a weak circulation in the near equatorial trough (drawn north by the influence of Typhoon Nina and TD-05) during the evening of the 8th. During the next 30 hours, this weak circulation moved northwestward at 6 knots showing little intensification.

On the morning of the 10th, a rapidly moving upper-level trough in the midlatitude westerlies was located to the northwest of the circulation. This trough provided a highly efficient high altitude outflow channel which allowed Ora to grow from a tropical depression into a typhoon within 30 hours. As this trough moved quickly toward the east, Ora responded with a north-northeastward movement. When Ora's eye passed over Miyako Jima at 0600Z on the 11th, the weather stations recorded 5-knot surface winds and a minimum pressure of 976 MB. Simultaneously, a ship (JL 11) 120 nm to the east reported 55-knot sustained winds. At 0749Z on the 11th, 50-knot gusts were recorded at Kadena AB, Okinawa, 150 nm northeast of Ora. As the trough passed to the east, the subtropical high over central China built rapidly eastward and Ora shifted northwestward and accelerated to 15 knots. By the morning of the 12th, Ora had turned westward at 13 knots until landfall was made on the 12th at 0800Z near Yung-chia on the central China coast.

From 0000Z on the 11th, until striking the China coast, Ora maintained typhoon strength winds of 65 knots. A surface high pressure cell moving eastward from the sea of Japan into the North Pacific rendered Ora a highly asymmetric storm with 30-knot winds extending 300 nm to the northeast and only 150 nm to the southwest.

Damage Estimates

Although little destruction was directly attributed to Ora, monsoon rains were spawned over the Philippines and caused widespread flooding and landslides. Choppy waters near Toclolan, Leyte capsized a crowded motorboat leaving 15 dead and 30 missing.

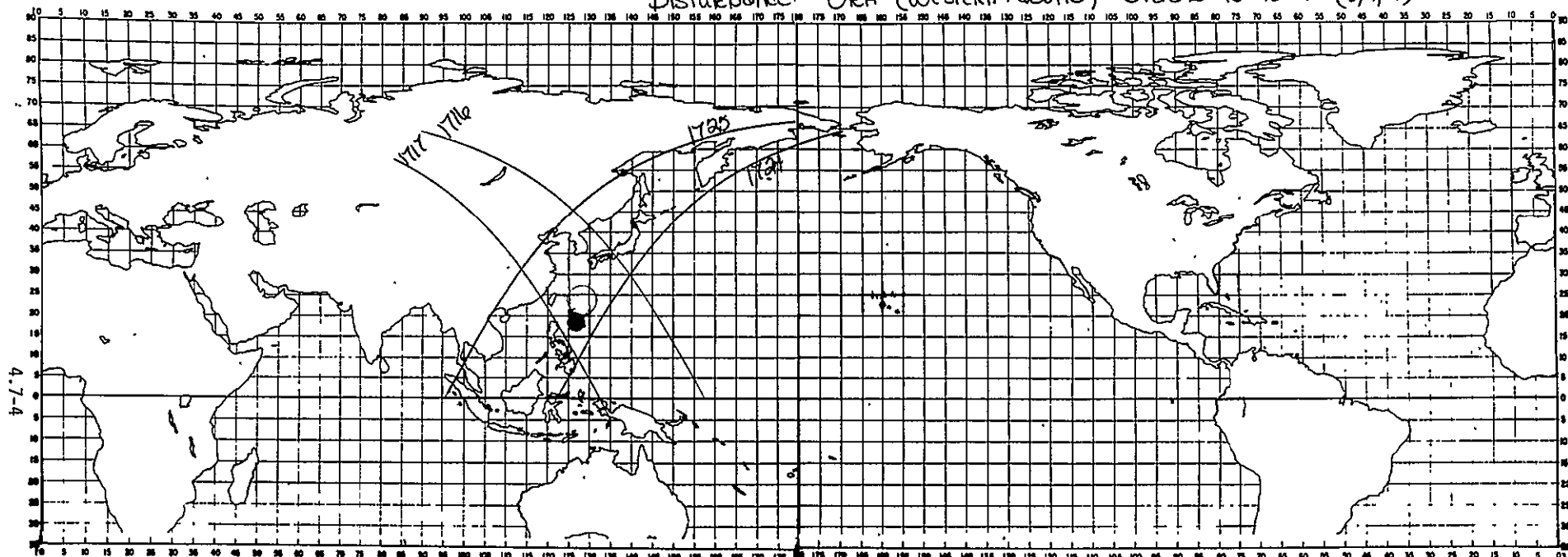


DISTURBANCE: "ORA" (WESTERN PACIFIC)

DATE: AUGUST 9 - AUGUST 12, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|-----------------------------|-----------------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 8/9 | 0123Z 1208Z | 18.0N 20.0 | 128.0E 125.5 | | | |
| 8/10 | 0022Z 1109Z | 21.7N 23.0 | 125.5E 124.1 | | | |
| 8/11 | 0116Z 1206Z | 24.0N 26.0 | 124.9E 124.8 | | | |
| 8/12 | 0016Z 1106Z | 27.2N 28.0 (Overland) | 122.7E 120.0 | | | |

Disturbance: "ORA" (Western Pacific) - 0123Z to 1208Z (8/9/75)

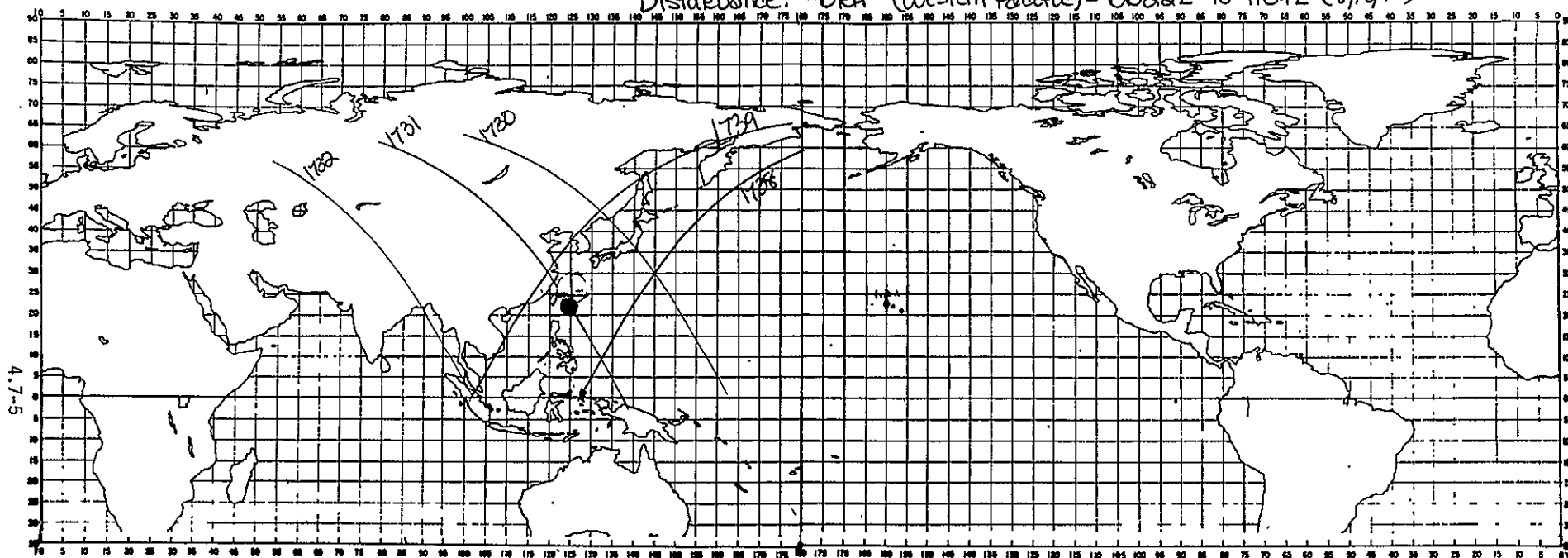


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0123Z | 18.0N | 128.0E |
| 1208Z | 20.0N | 128.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1716 | 156.79 | 06 22 28 Z | 06 31 Z | Do | | | |
| 1717 | 131.47 | 08 04 15 Z | 08 09 Z | Do | | | |
| 1724 | -45.79 | 19 56 44 Z | 20 43 Z | 203729 | 210239 | 802 | 88 |
| 1725 | -71.11 | 21 38 31 Z | 22 22 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Ora" (Western Pacific) - 0022Z to 1109Z (8/10/75)

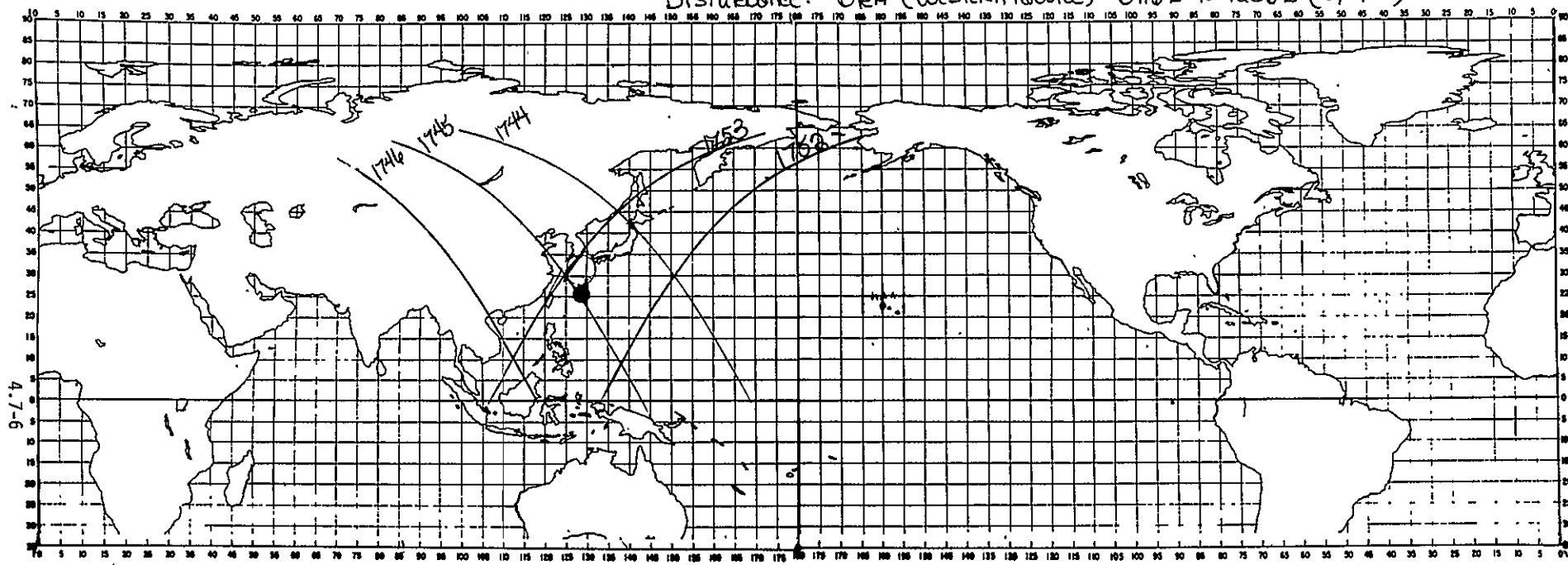


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0022Z | 21.7 N | 125.5 E |
| 1109Z | 23.0 N | 124.1 E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1730 | 116.8.87 | 06 07 27 Z | 06 18 Z | No | | | |
| 1731 | 136.95 | 07 49 14 Z | 07 56 Z | No | | | |
| 1732 | 111.62 | 09 31 01 Z | 09 35 Z | No | | | |
| 1738 | -40.32 | 19 41 44 Z | 20 27 Z | No | | | |
| 1739 | -105.104 | 21 23 31 Z | 22 07 Z | No | | | |
| | | | | | | | |

Disturbance: "ORA" (Western Pacific) - 0116Z to 1206Z (8/11/75)

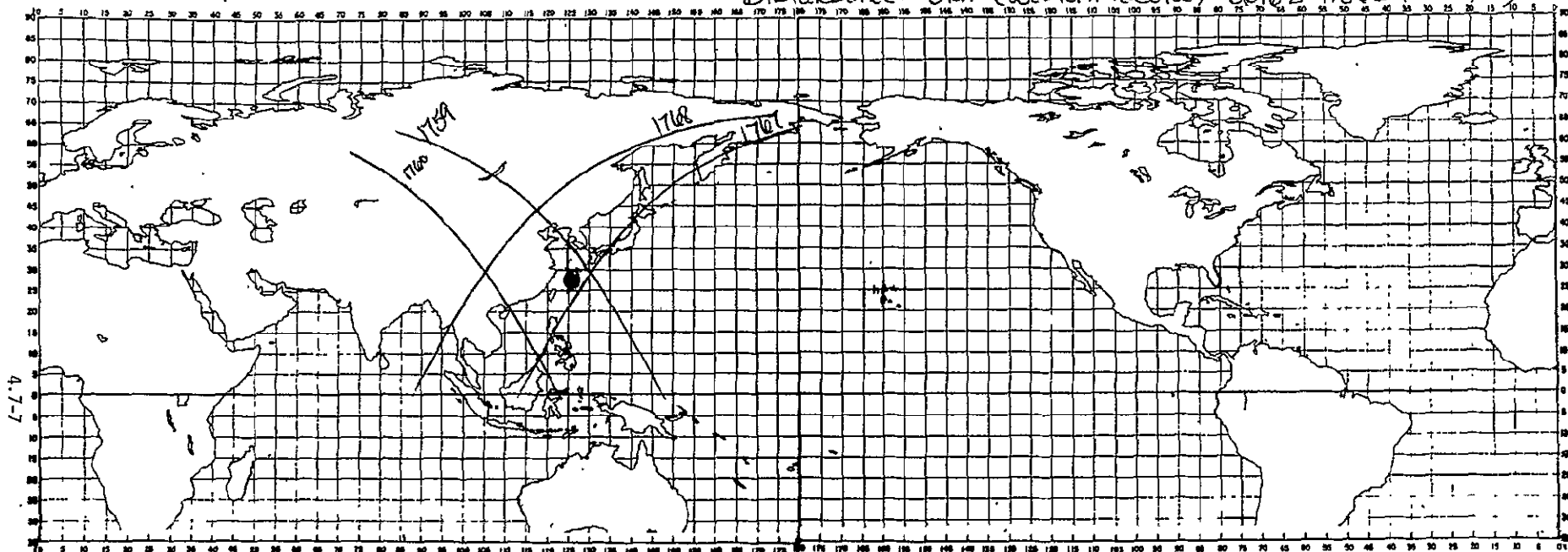


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0116Z | 24.0N | 124.9E |
| 1206Z | 26.0N | 124.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1744 | 167.74 | 05 52 26 Z | 06 04 Z | No | | | |
| 1745 | 142.42 | 07 34 13 Z | 07 42 Z | No | | | |
| 1746 | 117.10 | 09 16 00 Z | 09 23 Z | No | | | |
| 1752 | -34.84 | 19 26 43 Z | 20 12 Z | No | | | |
| 1753 | -60.17 | 21 08 20 Z | 21 50 Z | No | | | |
| | | | | | | | |

Disturbance: "Ora" (Western Pacific) - 0016Z to 1106Z (8/12/74)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0016Z | 27.2N | 132.7E |
| 1106Z | 28.0N | 130.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1759 | 147.89 | 07 19 13 Z | 07 28 Z | Do | | | |
| 1760 | 122.63 | 09 00 64 Z | 09 07 Z | Do | | | |
| 1767 | -54.67 | 20 53 24 Z | 21 36 Z | 213304 | 215836 | 802 | 134 |
| 1768 | -79.99 | 22 35 11 Z | 23 14 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON PHYLLIS

(August 12 - August 17, 1975)

Meteorological History/Data

Since early August, a monsoon trough had extended from the remains of Typhoon Nina in central China to an area west of Guam. A number of surface circulations appeared in this trough as early as the 8th of August, but it was not until the morning of the 11th that Phyllis first appeared as a tropical disturbance from 380 nm west-southwest of Guam.

The first warning on what was to become the fourth typhoon of 1975, was issued on the morning of the 12th. Aircraft reconnaissance located TD-07 395 nm west-southwest of Guam with center winds of 30 knots. At 0600Z on the 12th, the depression was upgraded to a 35-knot tropical storm. Aircraft reported multiple surface centers and a weak and diffuse 700 mb center.

Initially, the upper-level anticyclone was located 110 nm west of the surface center. However, by the morning of the 13th the upper and lower levels had become vertical. On the 13th at 0833Z, aircraft reported a closed wall cloud with an eye 30 nm in diameter. A Russian research vessel (EREC), reported 60-knot surface winds 60 nm west-southwest of Phyllis at 1200Z on the 13th; thus, Phyllis was upgraded to typhoon with maximum winds of 70 knots.

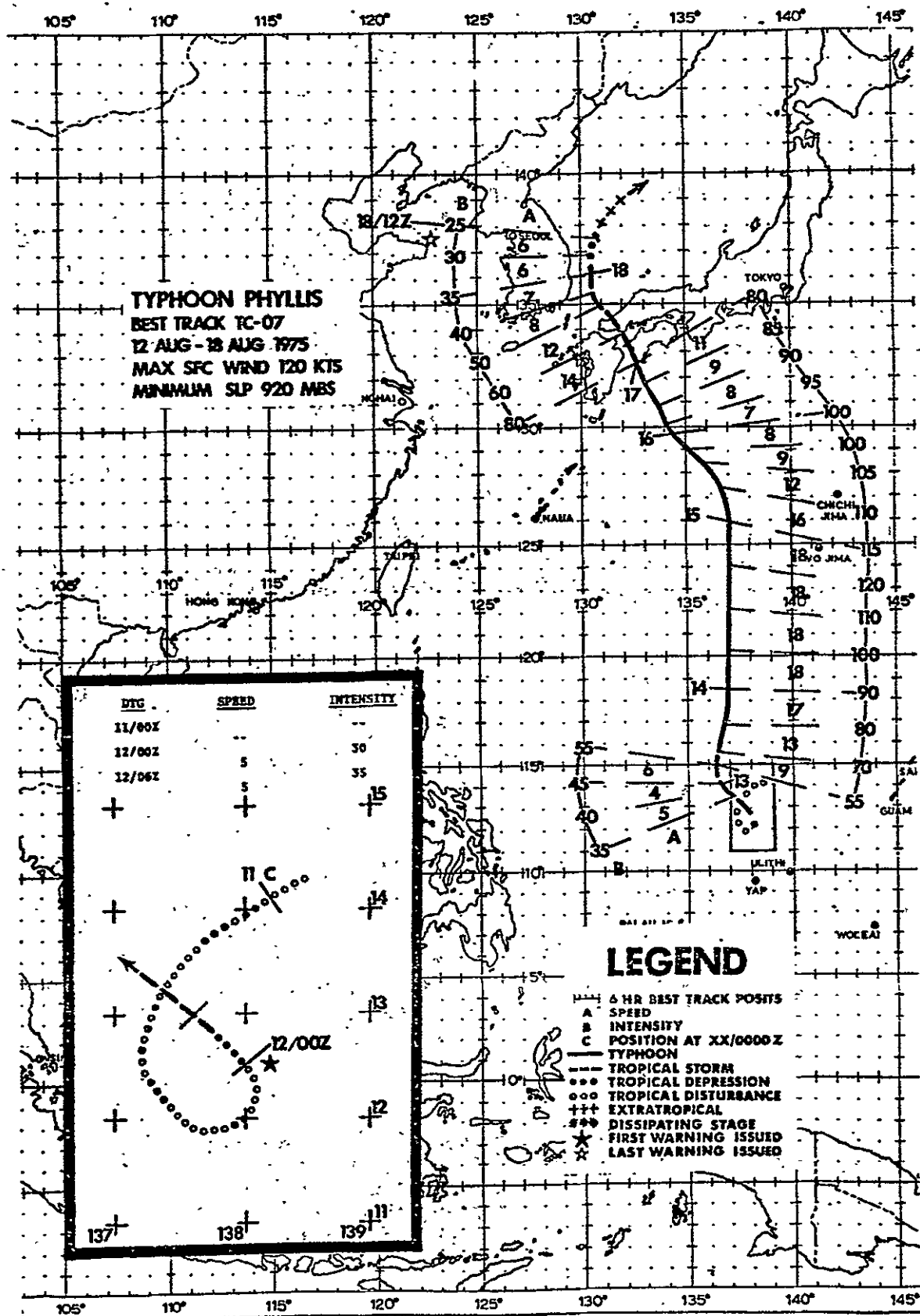
By the 13th, the mid-tropospheric ridge over China began to weaken while the ridge east of Japan intensified. Twenty-four hours later, Phyllis' forward speed had increased to 18 knots. The typhoon attained a maximum intensity of 120 knots on the 14th at 1800Z after aircraft had recorded a minimum sea level pressure of 920 mb at 1505Z. By the 15th, Phyllis' movement had slowed to 7 knots and had become northwestward as the midtropospheric ridge built westward across Japan.

After turning to the northwest, Phyllis once again accelerated, and by the afternoon of the 16th, was located 165 nm southeast of the Japanese Island of Shikoku. As Phyllis approached Japan, Shimizu (WMO station 47898, elev 99 ft), recorded sustained surface winds of 77 knots on the 16th at 1800Z and a minimum pressure of 970 mb at 2300Z. Murotomisaki (WMO station 47899, elev 606 ft), recorded sustained surface winds of 73 knots at 2000Z on the 16th. Phyllis, with 80-knot sustained winds, made landfall during the morning of the 17th near the southwestern edge of Shikoku.

Damage Estimates/Loss of Life

In her wake Phyllis left extensive damage and loss of life. On Shikoku alone there were at least 60 dead, 146 injured, and 12 missing due to the combination of heavy rains, flooding and numerous landslides. At least 489 houses were reported collapsed, 577 damaged, 58 washed away and thousands inundated. Phyllis passed 20 nm to the west of Iwakuni MCAS which reported maximum gusts of 38 knots.

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DISTURBANCE: "PHYLLIS" TD-07 (WEST PACIFIC)

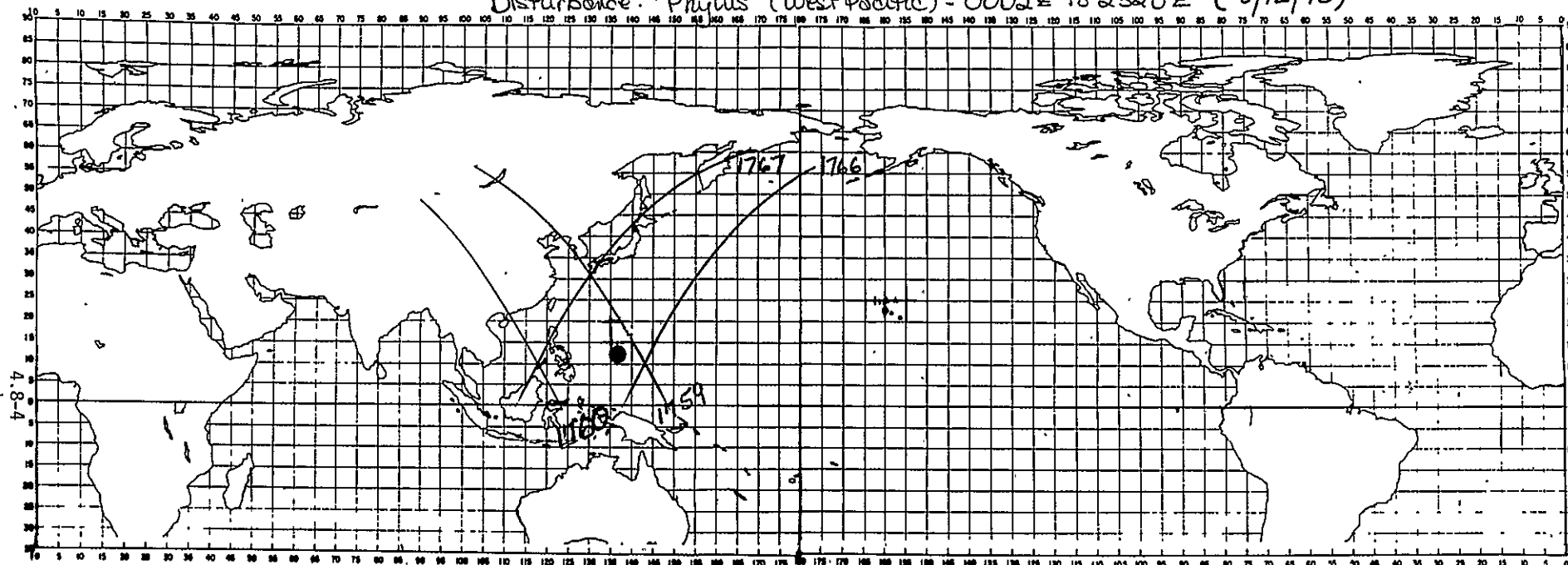
DATE: AUGUST 12 - AUGUST 17, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------|----------|-----------|------------------|---------------|----------------------|
| | | Latitude | Longitude | | | |
| 8/12 | 0002Z | 13.0N | 138.0E | | 30 | Tropical Disturbance |
| | ? | 14.5 | 136.0 | | | |
| | 2320Z | 13.3 | 136.3 | | | |
| 8/13 | 1156Z | 15.0N | 135.5E | | 70 | Typhoon |
| 8/14 | 00??Z | 18.4N | 136.5E | | | |
| | 1059Z | 22.9 | 136.5 | 920* | 120* | |
| | 2300Z | 25.7 | 137.0 | | | |
| 8/15 | 0157Z | 28.8N | 135.5E | | | |
| 8/16 | 0005Z | 29.4N | 134.2E | | | |
| | 1057Z | 31.0 | 134.0 | 970* | 77 | |
| 8/17 | 0058Z | 32.2N | 132.7E | | | |
| | 1154Z | 35.2 | 133.0 | | | |
| | 2358Z | 36.3 | 132.3 | | | |

* 920 mb at 1505Z
120 kt at 1800Z

** Reported at 2300Z

Disturbance: "Phyllis" (West Pacific) - 0002Z to 2320Z (8/12/75)

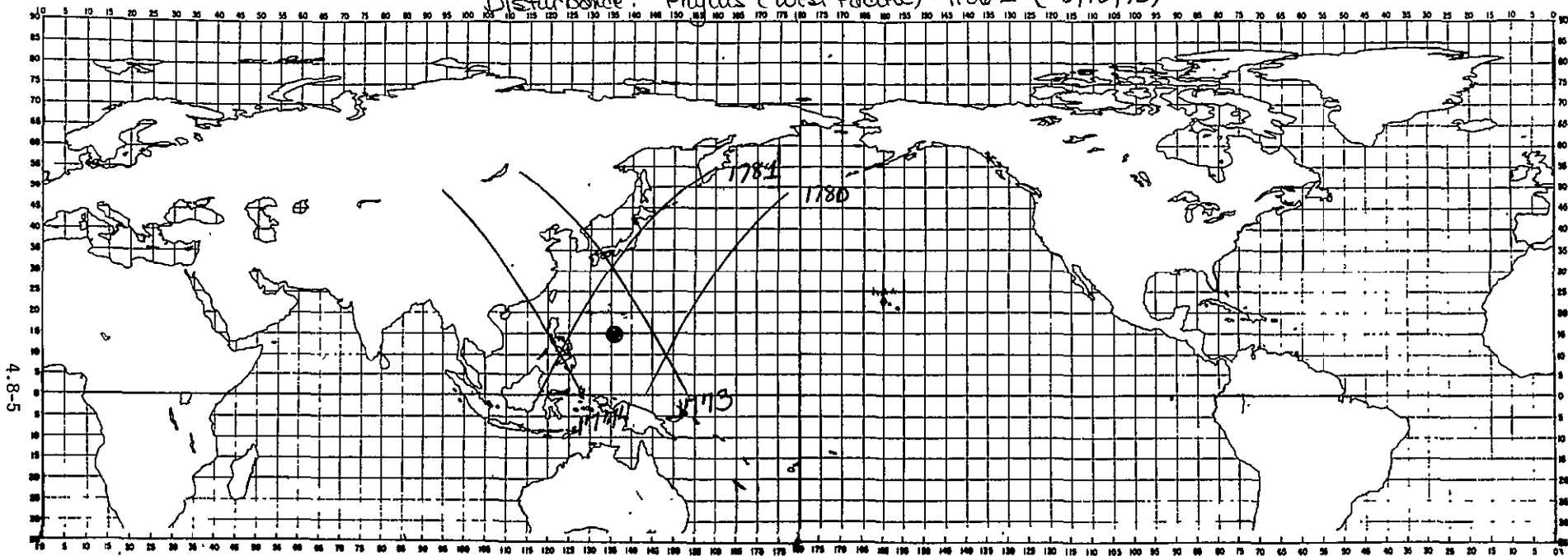


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0002Z | 13.0N | 138.0E |
| 2320Z | 13.3N | 136.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1759 | +147.89 | 07 19 13 Z | 0724 Z | Do | | | |
| 1760 | +122.60 | 09 00 54 Z | 0901 Z | Do | | | |
| 1766 | - 29.35 | 19 11 37 Z | 2000 Z | Do | | | |
| 1767 | - 54.67 | 20 53 24 Z | 2138 Z | 213304 | 215836 | 802 | 134 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Phyllis" (West Pacific) - 1156Z (8/13/75)

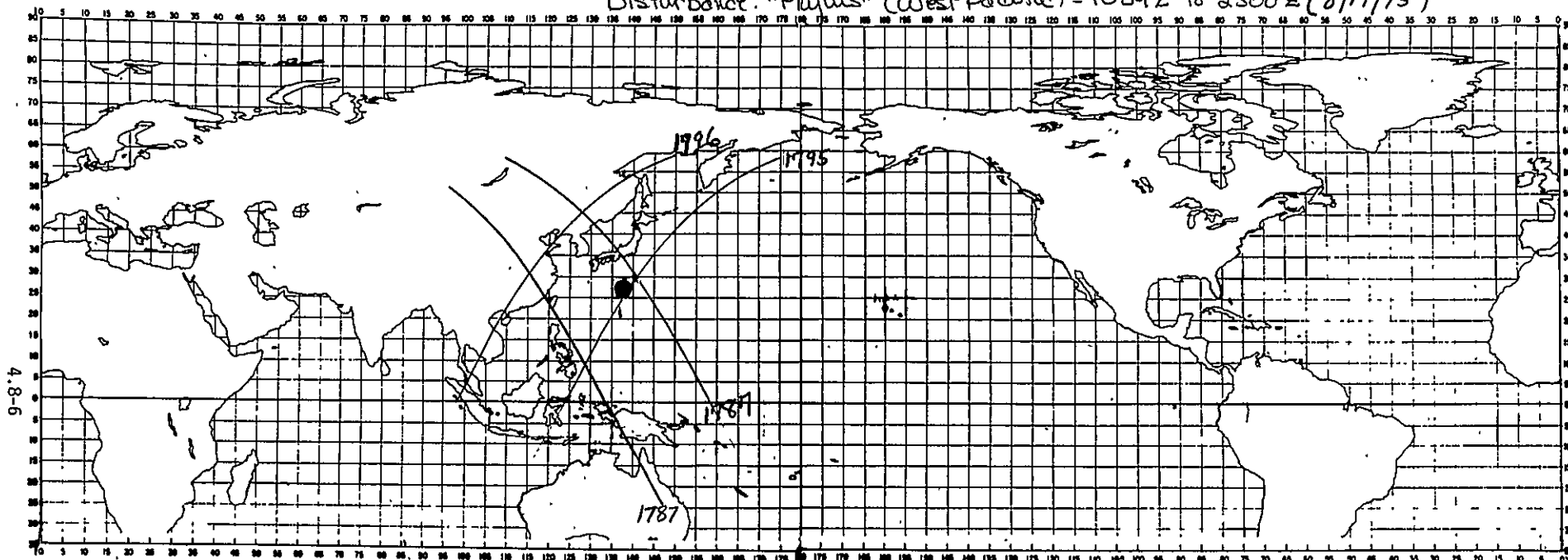


LOCATION

| TIME | LATITUDE | LONGITUDE |
|--------------|--------------|---------------|
| <u>1156Z</u> | <u>15.0N</u> | <u>135.5E</u> |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1773 | +153.39 | 07 04 06 Z | 0710 Z | No | | | |
| 1774 | +128.07 | 08 45 53 Z | 0848 Z | No | | | |
| 1780 | - 23.87 | 18 56 36 Z | 1945 Z | No | | | |
| 1781 | - 49.19 | 20 38 23 Z | 2123 Z | 211845 | 212805 | 802 | 145 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Phyllis" (West Pacific) - 1059Z to 2300Z (8/14/75)

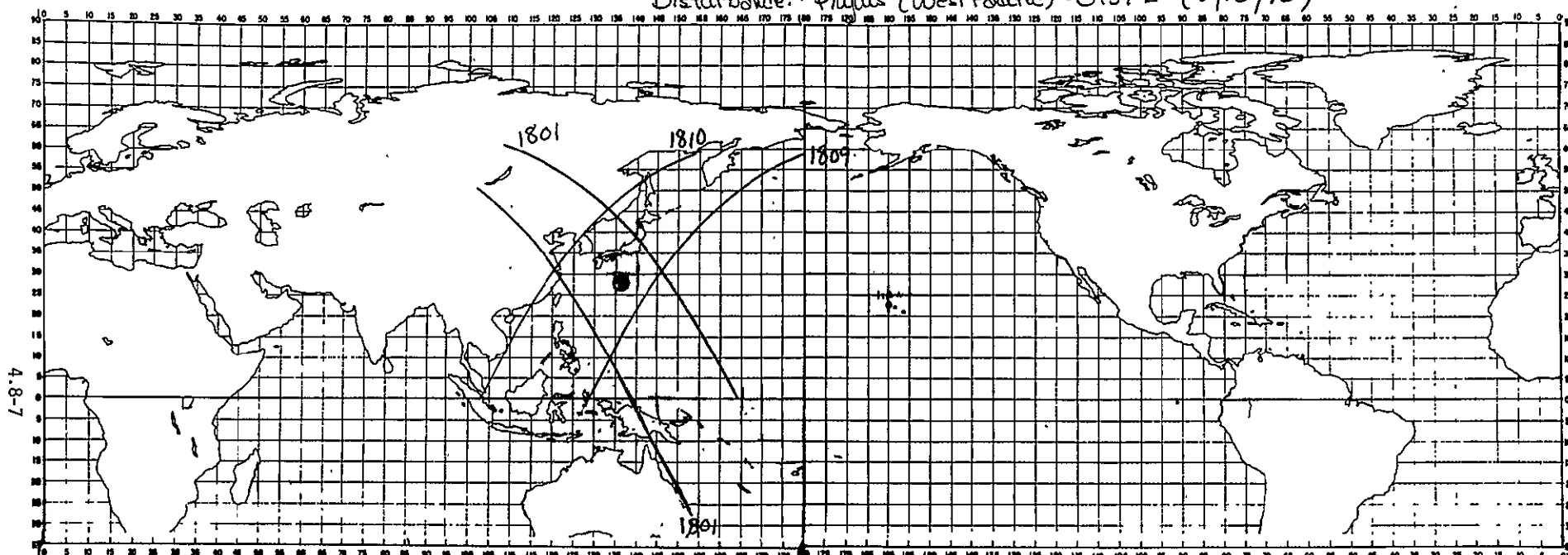


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1059Z | 22.9N | 136.5E |
| 2300Z | 25.7N | 137.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1787 | +158.87 | 06 49 05 Z | 0658Z | Do | | | |
| 1787 | +158.87 | 06 49 05 Z | 0836Z | 081343 | 083756 | 802 | 147 |
| 1795 | -43.72 | 20 23 22 Z | 2106Z | 210434 | 211434 | 802 | 156 |
| 1796 | -69.04 | 22 05 09 Z | 2244Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Phyllis" (West Pacific) - 0157 Z (8/15/75)

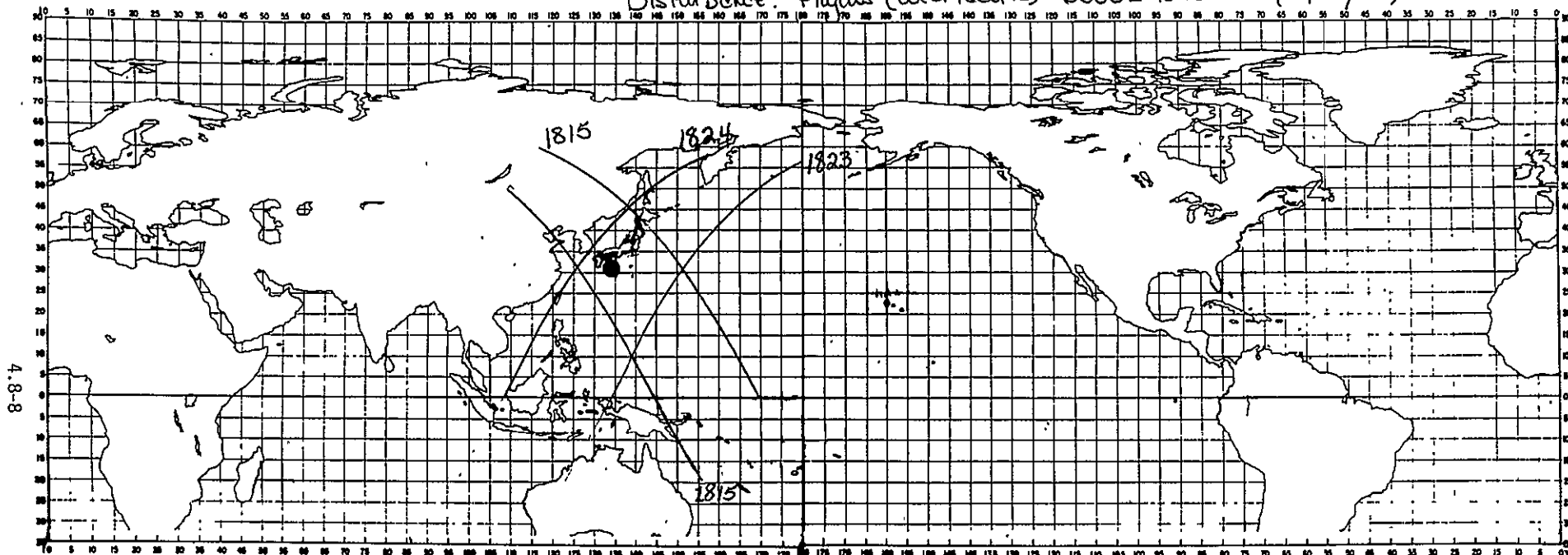


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0157Z | 28.8N | 135.5E |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1801 | +164.34 | 06 34 04 Z | 0645 Z | No | | | |
| 1801 | +164.34 | 06 34 04 Z | 0823 Z | 075938 | 082448 | 802 | 160 |
| 1809 | - 38.24 | 20 08 20 Z | 8052 Z | 805028 | 211632 | 802 | 167 |
| 1810 | - 63.56 | 21 50 07 Z | 2230 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance "Phyllis" (West Pacific) - 0005Z to 1057Z (8/16/75)

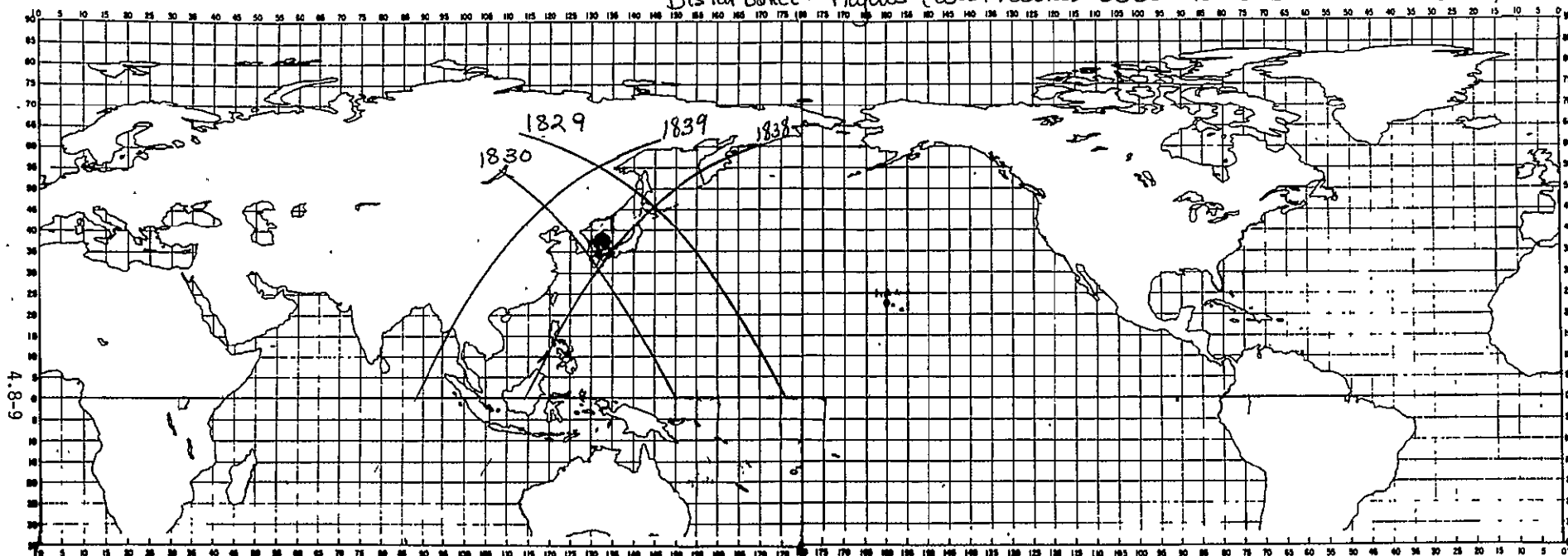


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0005Z | 29.4N | 134.2E |
| 1057Z | 31.0N | 134.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1815 | +169.82 | 06 19 03 Z | 0631Z | No | | | |
| 1815 | +169.82 | 06 19 03 Z | 0809Z | 074559 | 081056 | 802 | 170 |
| 1823 | -32.76 | 19 53 19 Z | 2037Z | No | | | |
| 1824 | -58.09 | 21 35 06 Z | 2216Z | 221455 | 222102 | 802 | 180 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Phyllis" (West Pacific) - 0058Z to 1154Z to 2358Z (8/17/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0058Z | 32.2N | 132.7E |
| 1154Z | 35.2N | 133.0E |
| 2358Z | 36.3N | 132.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1829 | +175.30 | 06 04 02 Z | 0619Z | No | | | |
| 1830 | +149.97 | 07 45 49 Z | 0756Z | No | | | |
| 1838 | -52.51 | 21 20 03 Z | 2200Z | 215849 | 220837 | 802 | 193 |
| 1839 | -77.93 | 23 01 52 Z | 2337Z | No | | | |
| | | | | | | | |
| | | | | | | | |

DISTURBANCE: NO NAME-B

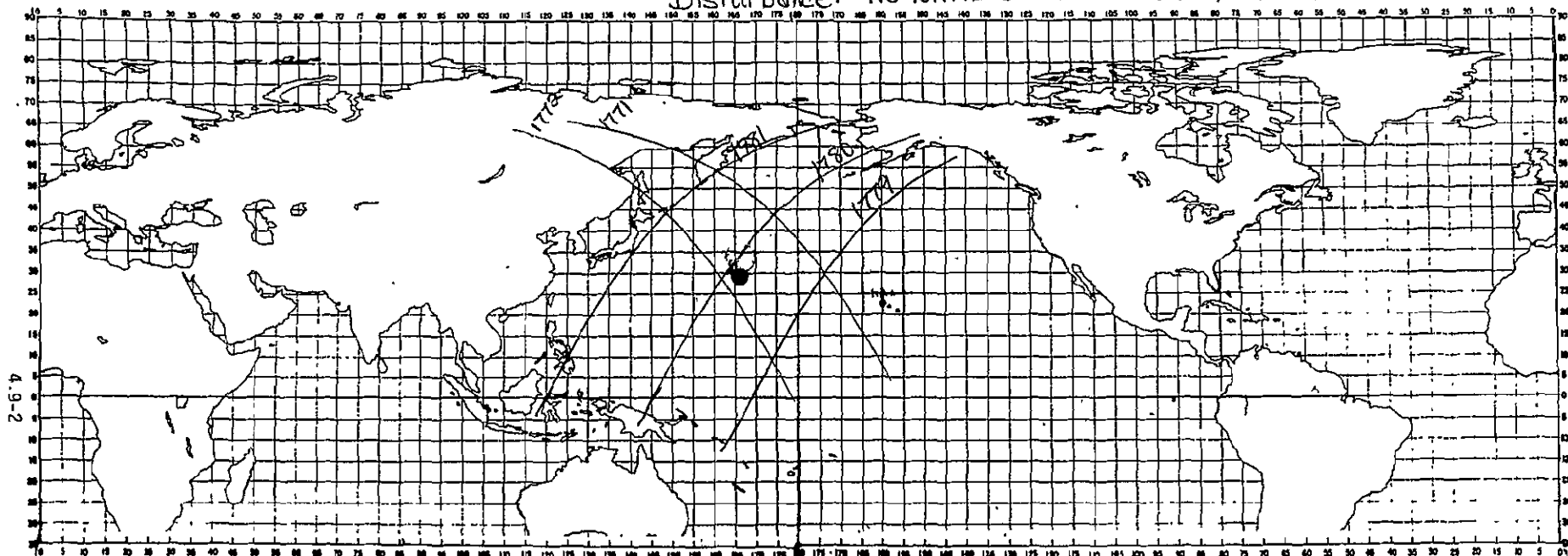
DATE: AUGUST 13 - AUGUST 16, 1975

LOCATION: WESTERN PACIFIC

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|---------------|-----------------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 8/13 | ? 2214Z | 28.0N 29.0 | 166.0E 166.0 | | | |
| 8/14 | 0907Z 2114Z | 29.0N 30.0 | 166.0E 165.5 | | | |
| 8/15 | 1002Z 2209Z | 30.0N 31.0 | 163.5E 161.5 | | | |
| 8/16 | 0902Z | 31.0N | 160.0E | | | |

* Not identified on list shown in Table 4-1. Apparently this was a very minor tropical depression.

Disturbance: NO NAME-B - 2214Z (8/13/75)

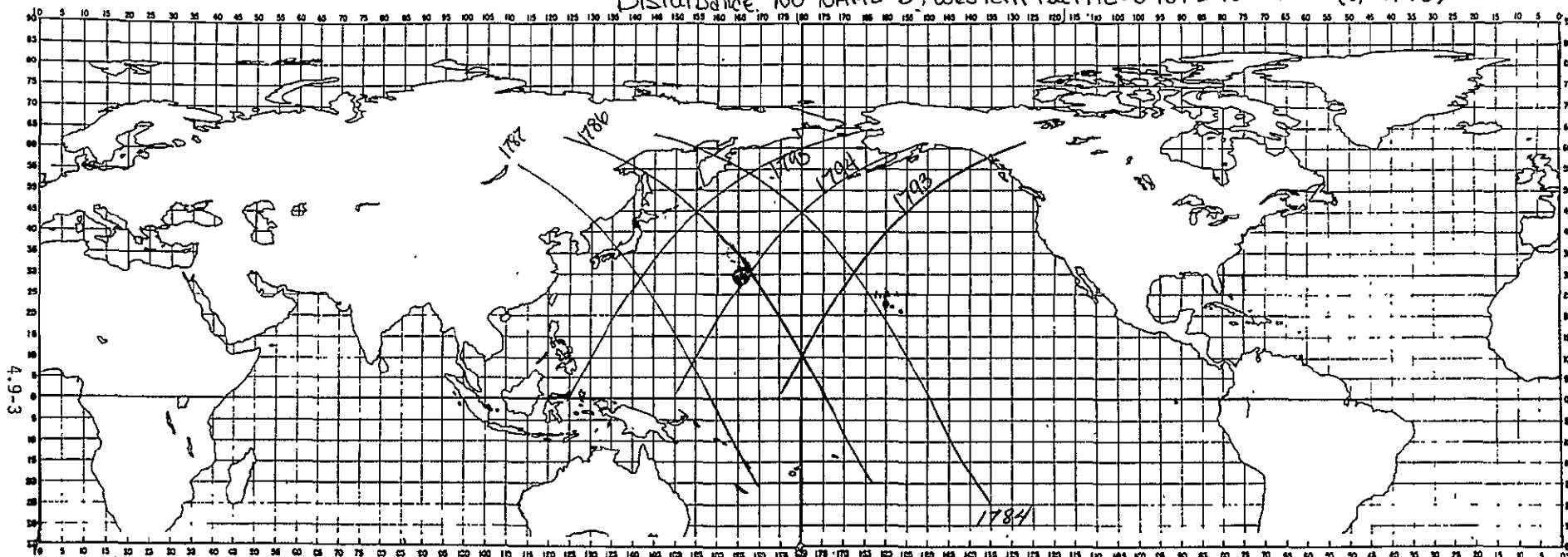


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2214Z | 29 ON | 166.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1771 | -156.96 | 03 40 32 Z | 03 53 Z | No | | | |
| 1772 | 178.72 | 05 28 19 Z | 05 30 Z | No | | | |
| 1779 | 1.45 | 17 14 49 Z | 17 59 Z | No | | | |
| 1780 | -23.87 | 18 53 38 Z | 19 35 Z | No | | | |
| 1781 | -49.19 | 20 38 23 Z | 21 15 Z | No | | | |
| | | | | | | | |

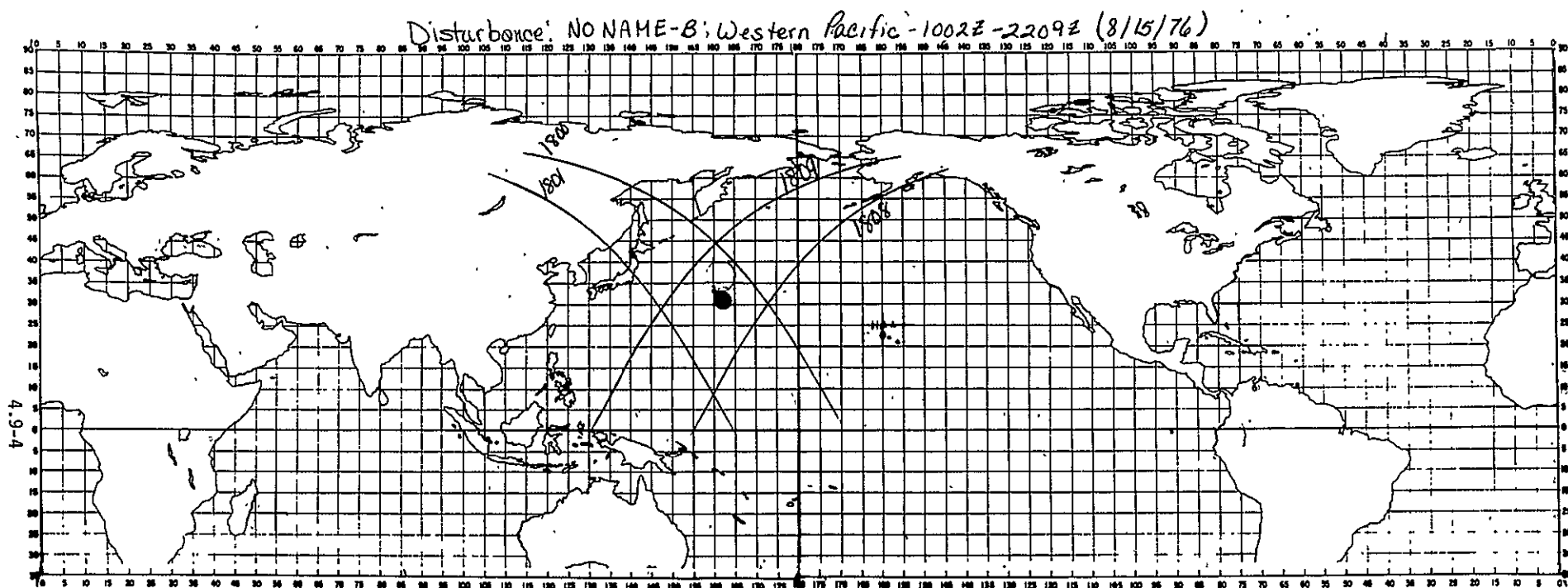
Disturbance: NO NAME-B, Western Pacific-0907Z to 2114Z (8/14/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0907Z | 29.0N | 166.0E |
| 2114Z | 30.0N | 165.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1784 | -125.18 | 01 43 40 Z | 03 39 Z | No | | | |
| 1786 | -175.81 | 05 07 18 Z | 05 16 Z | No | | | |
| 1787 | 158.87 | 06 49 05 Z | 06 55 Z | No | | | |
| 1793 | 6.93 | 16 59 48 Z | 17 44 Z | No | | | |
| 1794 | -18.39 | 18 41 35 Z | 19 24 Z | No | | | |
| 1795 | -43.72 | 20 03 02 Z | 21 01 Z | 210434 | 211434 | 802 | 156 |

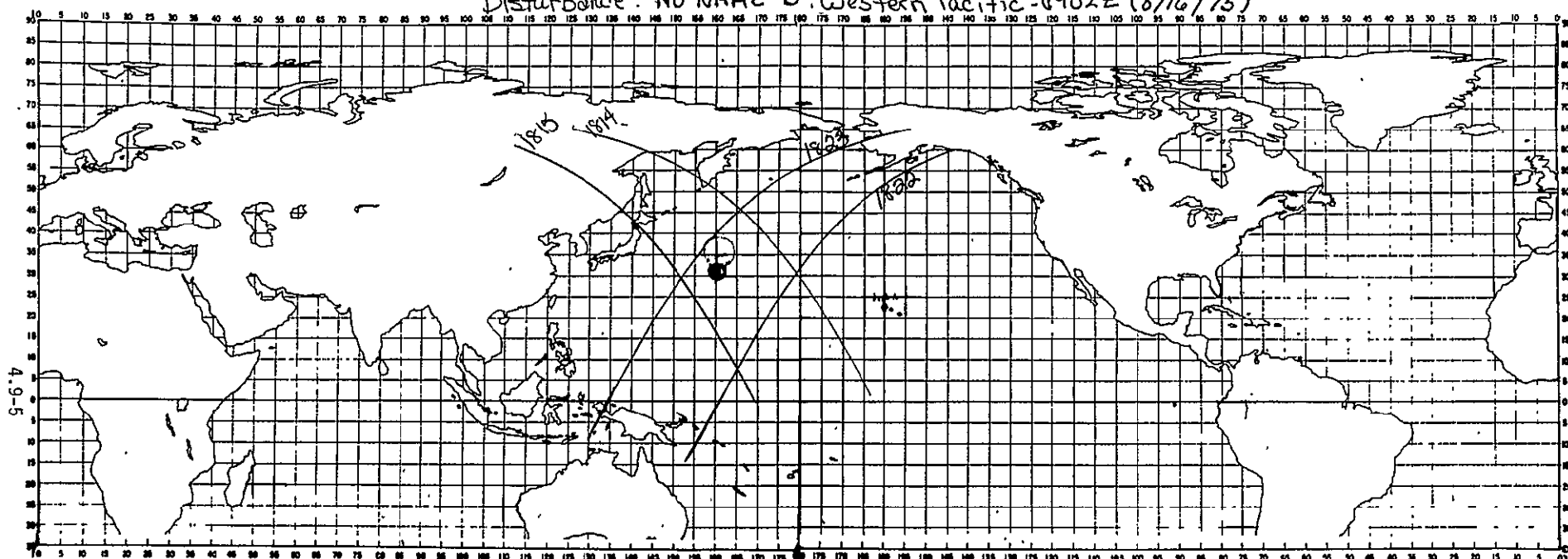


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1002Z | 30.0N | 163.5E |
| 2209Z | 31.0N | 161.5E |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1800 | -170.33 | 04 52 17 Z | 05 03 Z | No | | | |
| 1801 | 164.34 | 06 34 04 Z | 06 41 Z | No | | | |
| 1808 | -12.01 | 18 26 33 Z | 19 10 Z | No | | | |
| 1809 | -38.24 | 20 08 20 Z | 20 41 Z | 205028 | 211632 | 802 | 167 |
| | | | | | | | |
| | | | | | | | |

Disturbance: NO NAME-B, Western Pacific-0902Z (8/16/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0902Z | 31.0N | 160.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 1814 | -164.86 | 04 37 16 Z | 04 50 Z | No | | | |
| 1815 | 169.82 | 06 19 03 Z | 06 27 Z | No | | | |
| 1822 | -7.44 | 18 11 32 Z | 18 54 Z | No | | | |
| 1823 | -32.76 | 19 53 19 Z | 20 33 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON RITA

(August 16 - August 23, 1975)

Meteorological History/Data

The third typhoon in August, Rita, made landfall in Japan closely following the wake of Typhoon Phyllis. Due to heavy rains brought by Rita, the storm proved to be the most damaging to affect the northern Japanese islands since 1965.

The typhoon's birth can be traced to the development of a monsoon depression some 180 nm southeast of Iknawa on the 18th. Drifting first east then westward, Rita began to gain strength as aircraft reconnaissance reports verified storm force winds in the circulation on the following day. Due to a weakening subtropical high cell east of Japan, heights began to fall north of Rita. In response, the storm reversed track to an easterly direction a few miles off the northern tip of Okinawa. A minimum pressure of 983.4 mb was registered at Kadena Air Base on the 20th at 0620Z although winds were comparatively light with a peak gust of 37 knots from the northwest recorded at 0514Z.

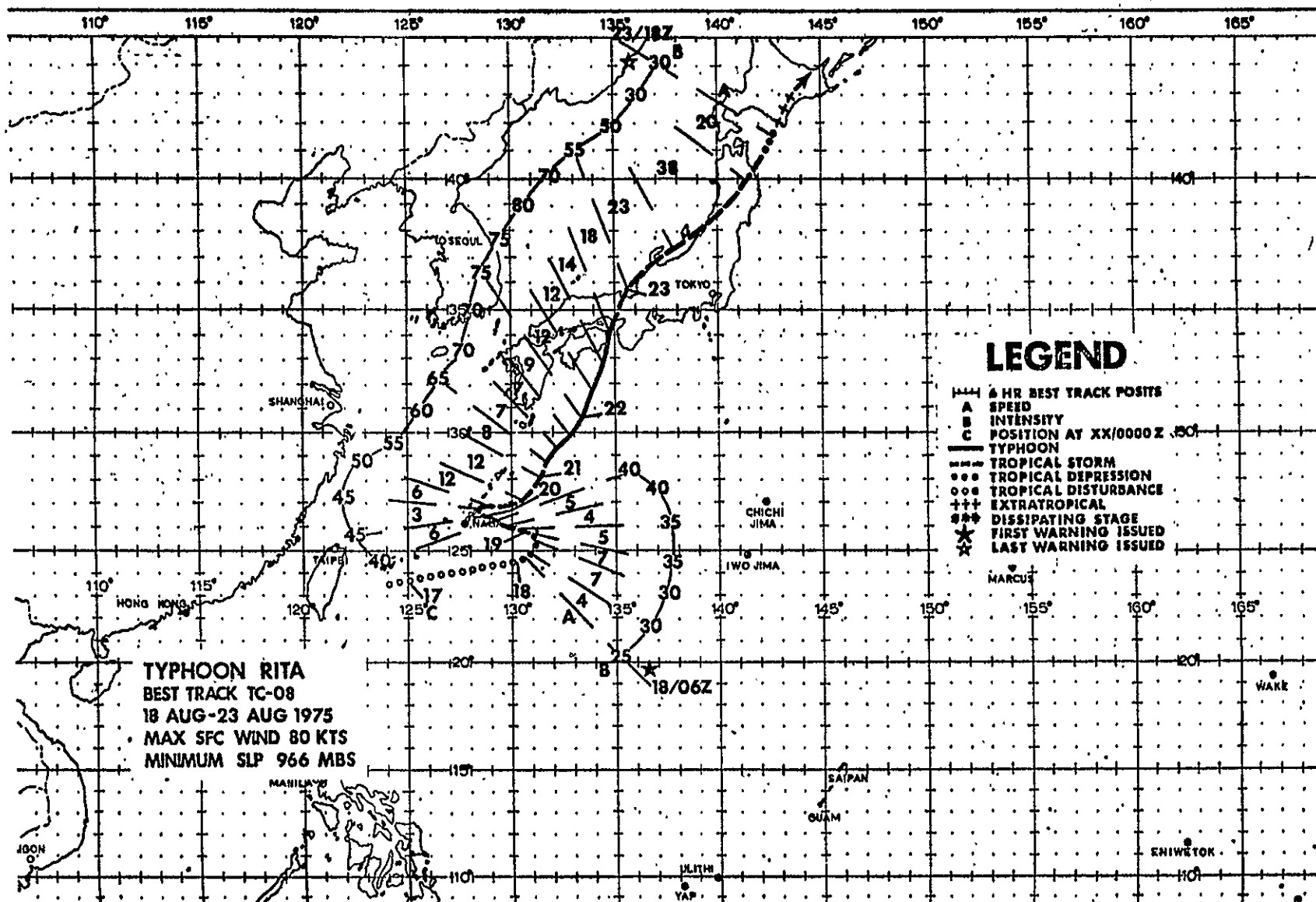
An approaching short wave over Manchuria began to draw Rita on a more northward course late on the 20th. By the afternoon of the 21st, typhoon force winds were reached and Rita's circulation had grown significantly in size. Due to the building pressure gradient associated with the high cell east of Japan, gale force winds extended some 300 nm in the typhoon's eastern semicircle. As the short wave continued to approach the typhoon, Rita accelerated gradually in a north-northeasterly direction, making landfall 30 nm west of Osaka late on the 22nd. Prior to landfall, Rita's 40-60 nm diameter eye passed over Murotomisaki (WMO station 47899, elev 606 ft), Shikoku. The station experienced a pressure reading of 966.3 mb at 1200Z and sustained surface winds of 80 knots.

Quickly crossing central Honshu, Rita veered slightly and accelerated to speeds of 30-35 knots ahead of an advancing cold front in the Sea of Japan. First tracking along the western coast, Rita crossed the northern portion of Honshu, finally emerging back into the Pacific on a northeasterly heading. Strong gusty winds occurred along the exposed southern coast of Honshu between the Kii and Boso peninsulas. Southerly winds gusting near 55 knots were recorded at Yokota Air Base between 0300Z and 0400Z on the 23rd.

Merging with the frontal zone south of Hokkaido, Rita continued to track northeastward as an extratropical low.

Damage Estimates/Loss of Life

Torrential rains swept Hokkaido with amounts totaling near 8.2 inches in 24 hours. Landslides and flash flooding as a result of the rains were responsible for extensive crop and property damage with farmlands inundated and 36,000 houses flooded throughout Japan. At least 26 deaths were attributed to the typhoon. Newspaper reports indicate that it was the worst flooding in 10 years for Hokkaido. Several major rivers on the island overflowed their banks leaving towns marooned and isolated.



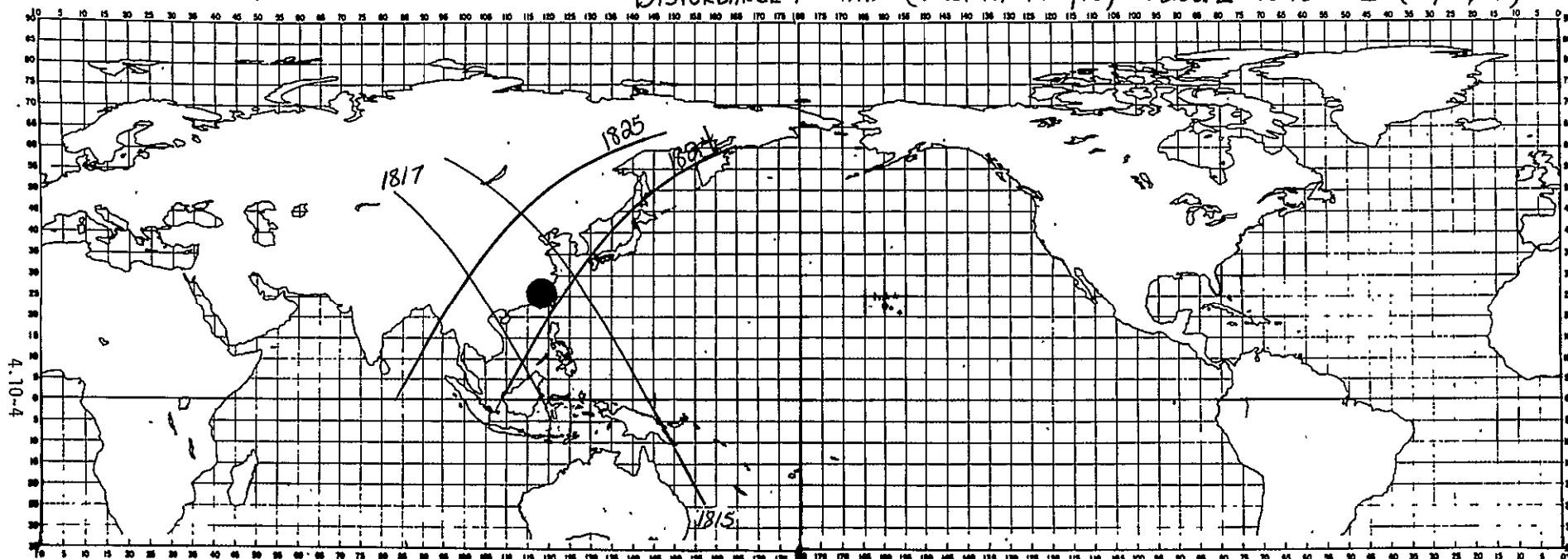
DISTURBANCE: "RITA" TD-08; (WESTERN PACIFIC)

DATE: AUGUST 16 - AUGUST 23, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------------------|-----------------------|--------------------------|------------------|---------------|----------------|
| | | Latitude | Longitude | | | |
| 8/16 | 0202Z 1250Z | 23.0N 24.0 | 119.5E 119.5 | | | |
| 8/17 | 0102Z 1149Z | 23.0N * | 120.0E * | | | |
| 8/18 | 0001Z 1050Z | 24.0N 25.0 | 130.0E 130.0 | | | |
| 8/19 | 0056Z 1145Z 2357Z | 25.0N 25.0 26.3 | 130.0E 128.8 128.8 | | | |
| 8/20 | 1046Z | 27.0N | 130.0E | 983.4 (0620Z) | 37 (0514Z) | Tropical Storm |
| 8/21 | 0050Z 1142Z 2350Z | 28.0N 30.0 30.1 | 131.3E 132.0 133.5 | | | |
| 8/22 | 1043Z | 33.2N | 133.7E | 966.3 (1200Z) | 80 (1200Z) | Typhoon |
| 8/23 | 0042Z | 36.0N | 135.5E | | | |

* No definite center to classify, but numerous suspect areas within convection 15°N to 25°N between 115°E and 150°E.

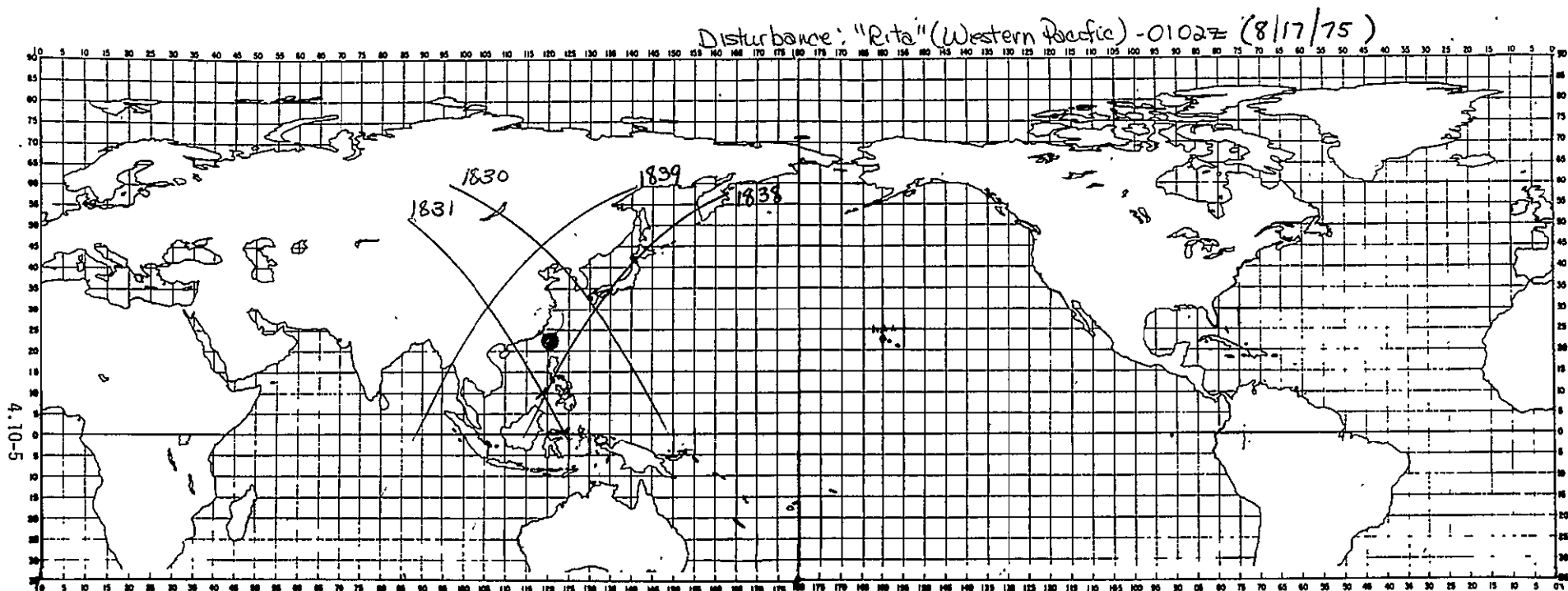
DISTURBANCE: "RITA" (Western Pacific) - 0202Z to 1250Z (8/16/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0202Z | 23.0N | 119.5E |
| 1250Z | 24.0 | 119.5 |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1815 | +169.78 | 06 19 10 Z | 08 09 Z | 074559 | 081056 | 802 | 170 |
| 1817 | +119.17 | 09 42 37 Z | 09 49 Z | No | | | |
| 1824 | -58.09 | 21 35 08 Z | 22 19 Z | 221435 | 222102 | 802 | 180 |
| 1825 | -83.41 | 23 10 53 Z | 23 58 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

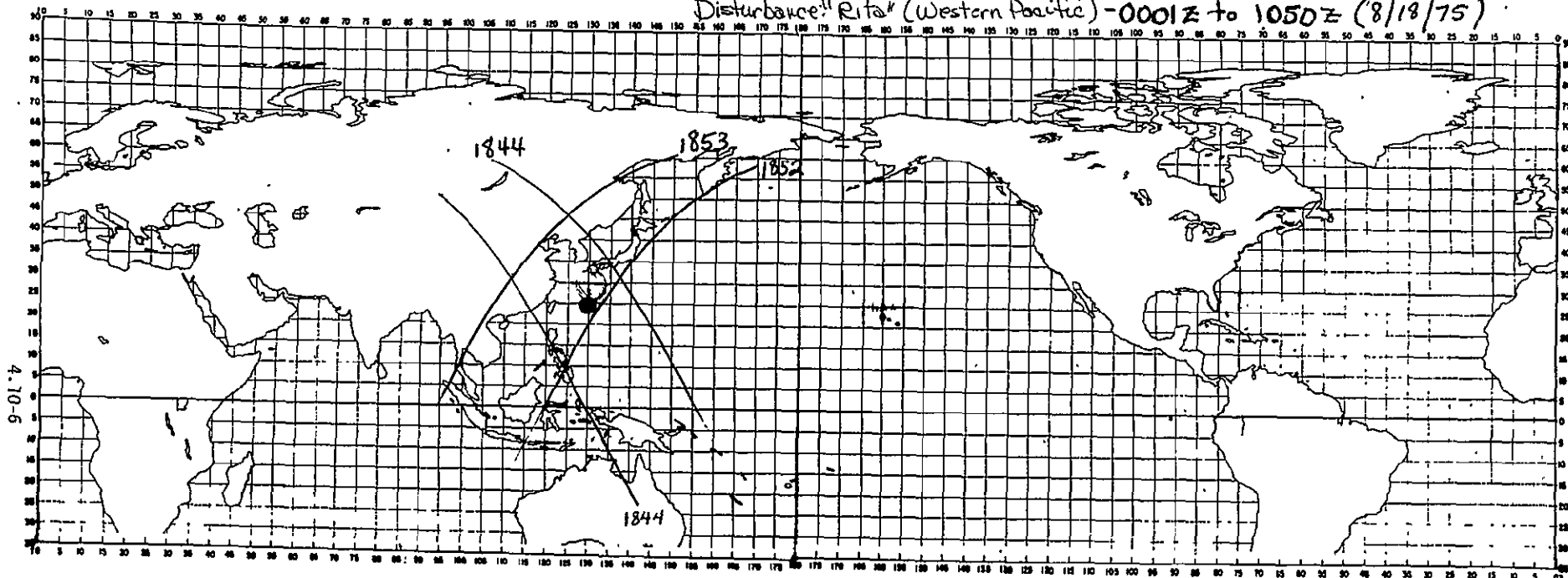


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0102Z | 23.0N | 120.0E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1830 | +149.97 | 07 45 49 Z | 07 55 Z | No | | | |
| 1831 | +124.65 | 09 27 36 Z | 09 33 Z | No | | | |
| 1838 | - 52.61 | 21 20 03 Z | 22 05 Z | 215849 | 220837 | 802 | 193 |
| 1839 | - 77.93 | 23 01 52 Z | 23 44 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance "Rita" (Western Pacific) - 0001Z to 1050Z (8/18/75)

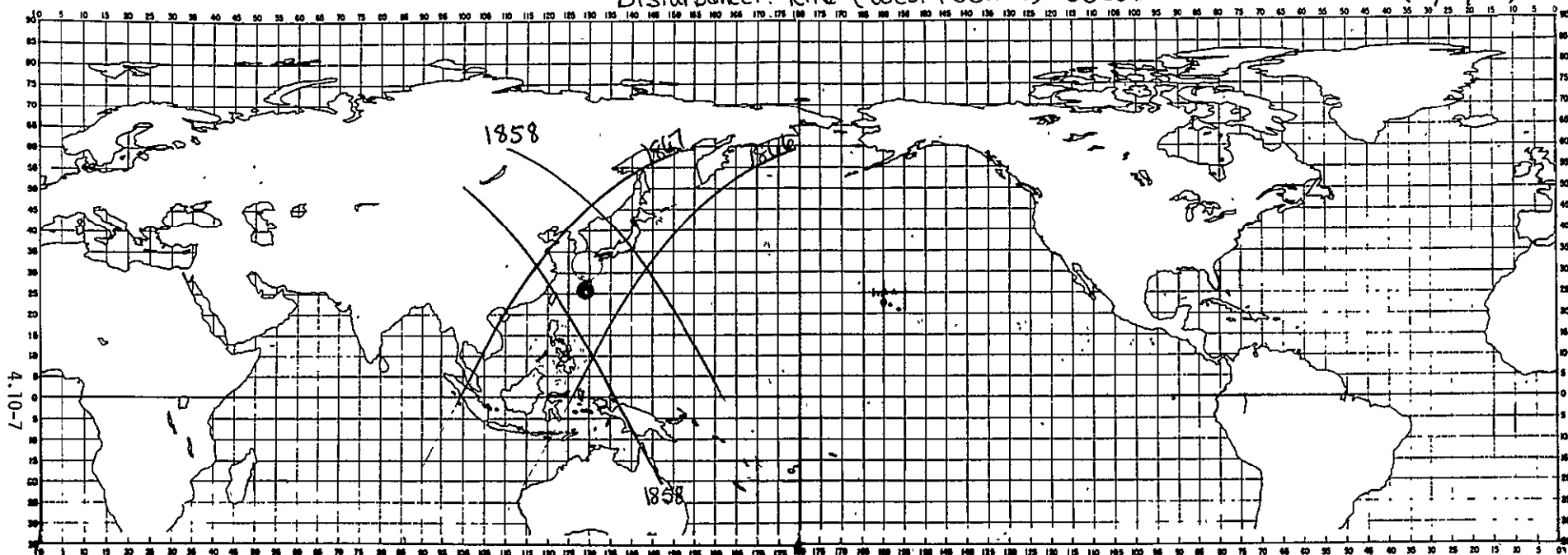


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0001Z | 24.0N | 130.0E |
| 1050Z | 26.0N | 130.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1844 | +155.45 | 07 30 48 Z | 07 40 Z | No | | | |
| 1844 | +155.45 | 07 30 48 Z | 09 19 Z | 090859 | 091853 | 802 | 193 |
| 1852 | -47.14 | 21 05 04 Z | 21 47 Z | 213242 | 215531 | 802 | 199 |
| 1853 | -72.46 | 22 46 51 Z | 23 28 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Rita" (West Pacific) - 0056Z to 1145Z to 2357Z (10/19/75)

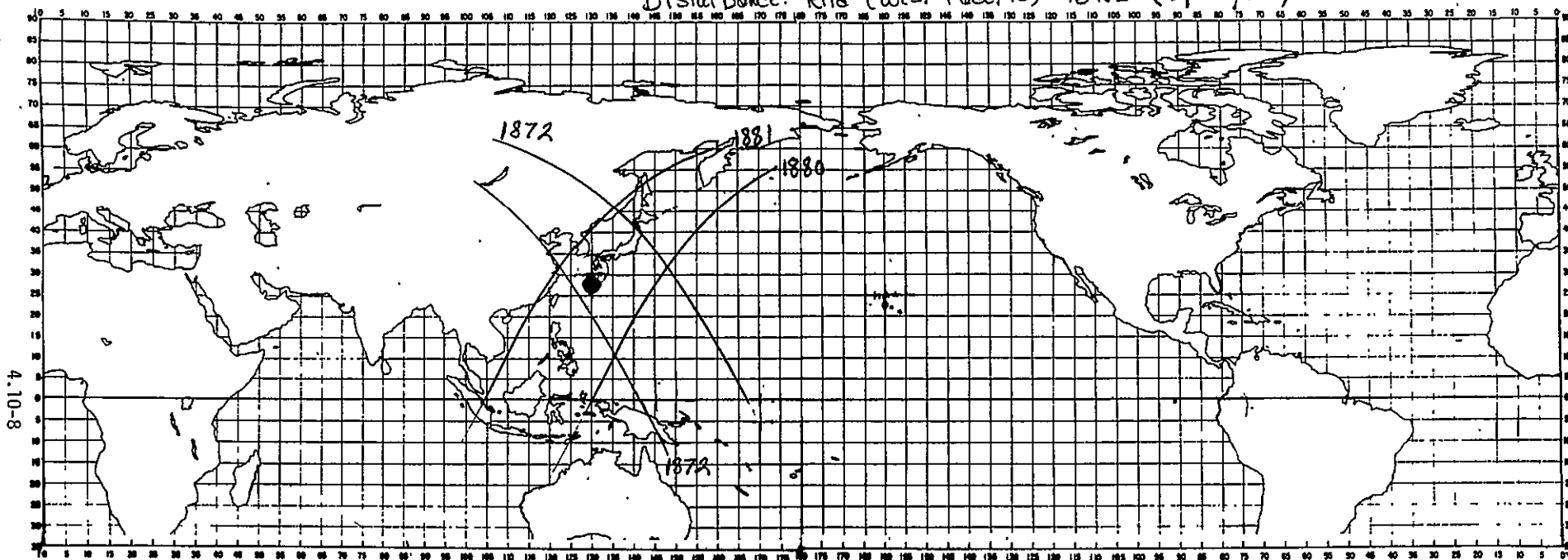


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0056Z | 25.0N | 130.0E |
| 1145Z | 25.0N | 128.8E |
| 2357Z | 26.3N | 128.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1858 | +160.93 | 07 15 46 Z | 07 26 Z | Do | | | |
| 1858 | +160.93 | 07 15 46 Z | 09 05 Z | 185406 | 090540 | 802 | 204 |
| 1866 | -41.69 | 20 50 12 Z | 21 34 Z | 213135 | 214301 | 802 | 210 |
| 1867 | -67.02 | 22 31 59 Z | 23 15 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Rita" (West Pacific) - 1046z (8/20/75)



LOCATION

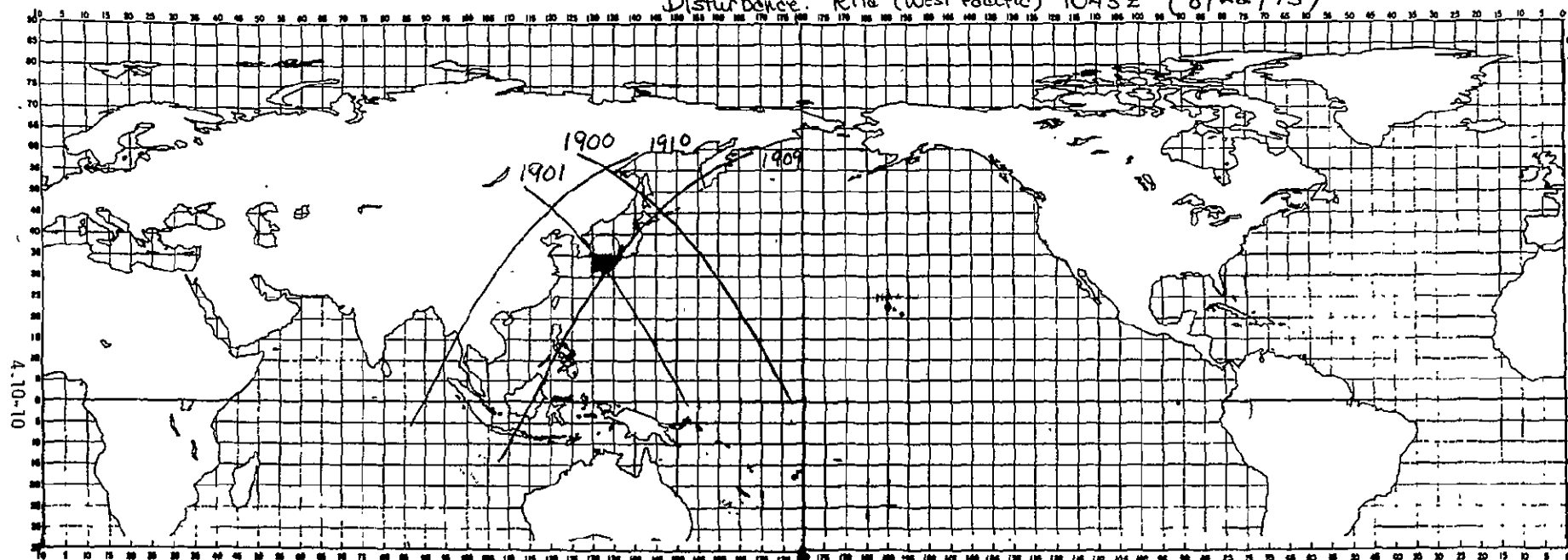
| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1046z | 27.0N | 130.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1872 | +166.36 | 07 00 55 Z | 07 12 Z | No | | | |
| 1872 | +166.36 | 07 00 55 Z | 08 51 Z | 082649 | 085159 | 802 | 265 |
| 1880 | -36.22 | 20 35 11 Z | 21 19 Z | No | | | |
| 1881 | -61.54 | 22 16 58 Z | 22 58 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0050Z | 28.0N | 131.3E |
| 1142Z | 30.0N | 132.0E |
| 2350Z | 30.1N | 133.5E |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1886 | +171.84 | 06 45 54 Z | 06 58 Z | Do | | | |
| 1886 | +171.84 | 06 45 54 Z | 08 36 Z | 081331 | 085800 | 802 | 228 |
| 1894 | -30.74 | 20 20 10 Z | 21 03 Z | 210348 | 211413 | 802 | 233 |
| 1895 | -55.07 | 22 01 58 Z | 22 43 Z | Do | | | |
| 1896 | -81.39 | 23 43 45 Z | 00 20 Z | No | | | |

Disturbance: "Rita" (West Pacific) - 1043Z (8/22/75)

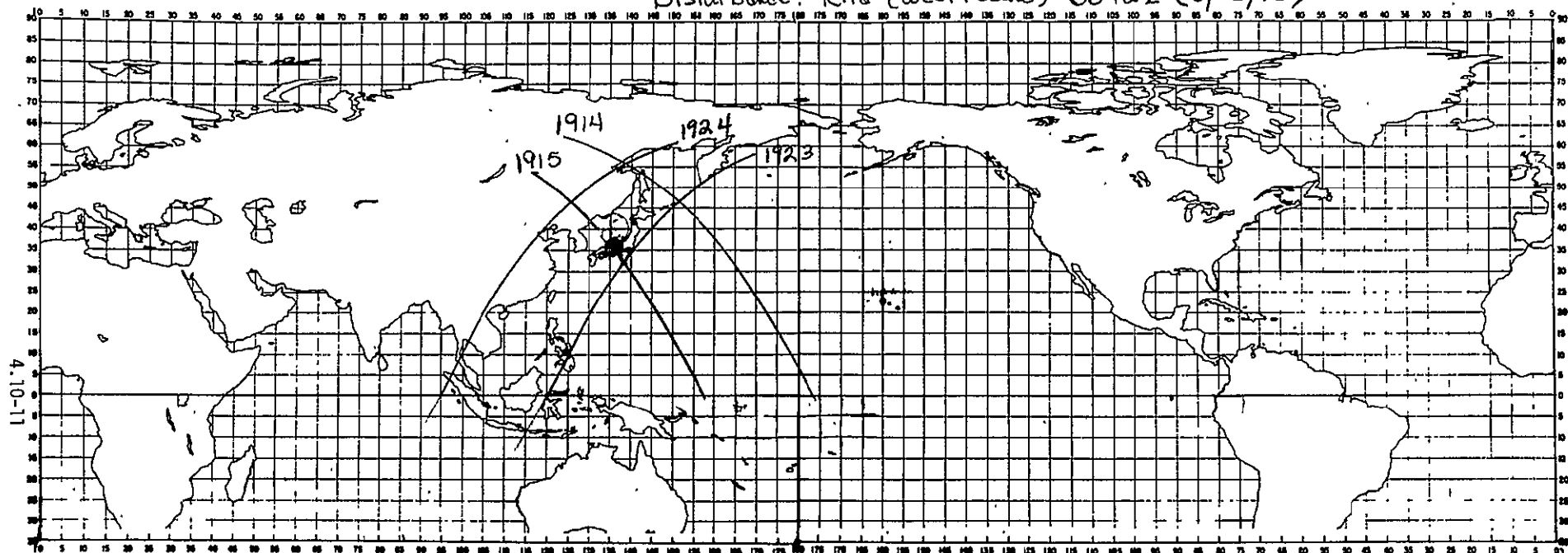


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1043Z | 33.2N | 133.7E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1900 | +177.31 | 06 30 53 Z | 06 45 Z | No | | | |
| 1901 | +151.99 | 08 12 40 Z | 08 03 Z | No | | | |
| 1909 | -50.60 | 21 46 57 Z | 22 28 Z | 222702 | 223616 | 802 | 244 |
| 1910 | -75.92 | 23 28 44 Z | 00 06 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Rita" (West Pacific) - 0042Z (8/23/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0042Z | 36.0N | 135.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIT.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1914 | -177.21 | 05 15 52 Z | 05 31 Z | No | | | |
| 1915 | +157.47 | 07 57 39 Z | 08 09 Z | No | | | |
| 1923 | -45.12 | 21 31 56 Z | 22 13 Z | 221248 | 222244 | 802 | 256 |
| 1924 | -70.44 | 23 13 43 Z | 23 50 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

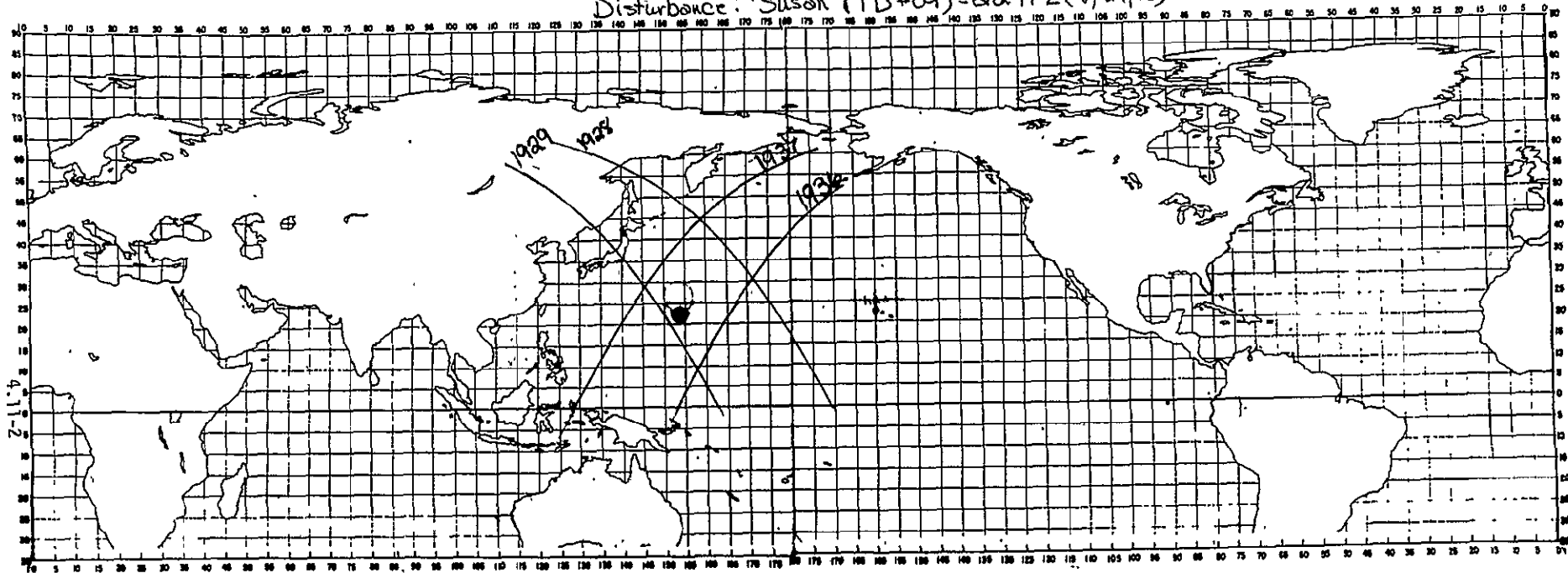
DISTURBANCE: "SUSAN" TD-09;

DATE: AUGUST 24 - SEPTEMBER 1, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|---------------|-----------------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 8/24 | 2247Z | 23.0N | 154.0E | | | |
| 8/25 | 0934Z 2147Z | 23.0N 24.0 | 153.5E 154.0 | | | |
| 8/26 | 22??Z | 27.5N | 152.0E | | | |
| 8/27 | 0937Z 2334Z | 30.0N 31.7 | 152.0E 151.8 | | | |
| 8/28 | 1027Z 2234Z | 34.0N 34.7 | 151.5E 152.3 | | | |
| 8/29 | 0930Z 2326 | 36.0N 36.3 | 154.3E 156.8 | | | |
| 8/30 | 0830Z 2227 | 37.2N 37.2 | 157.7E 158.0 | | | |
| 8/31 | 0936Z 2322Z | 39.2N 39.3 | 158.0E 157.0 | | | |
| 9/1 | 1070Z 2222Z | 40.7N 41.0 | 156.2E 156.0 | | | |

NOTE: See track map, page 4.1-7.

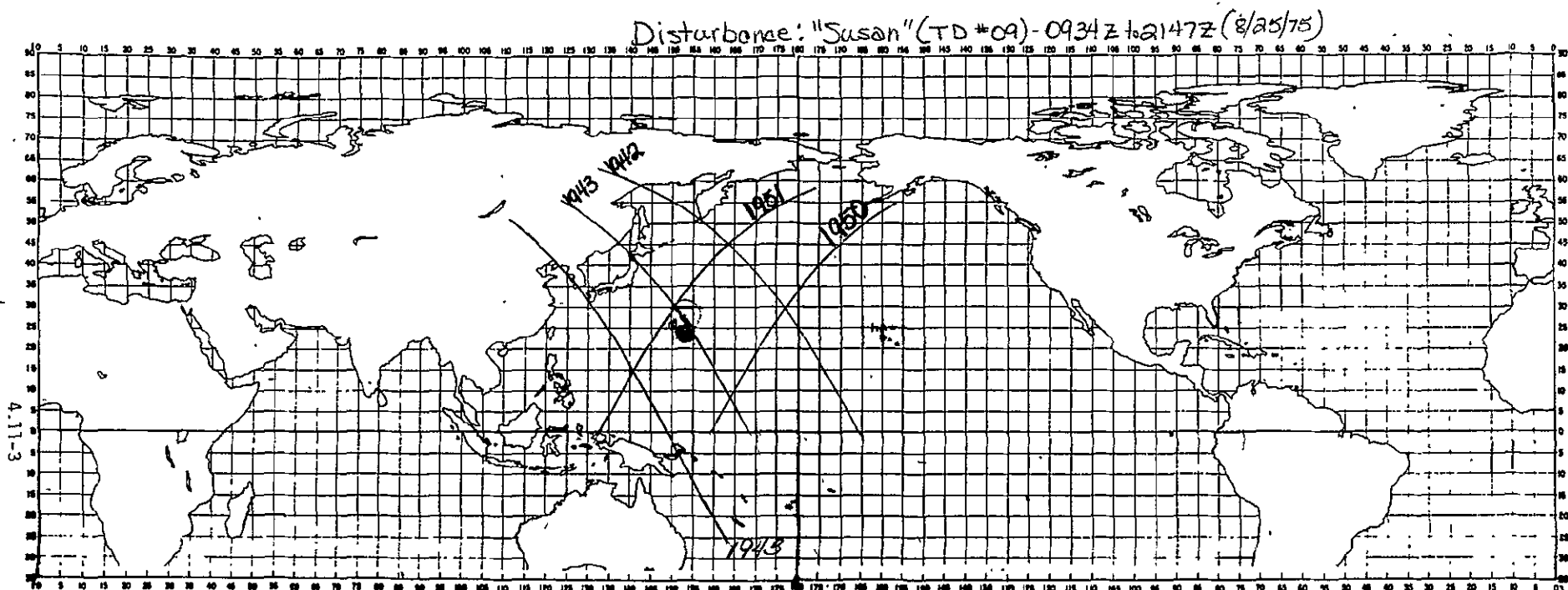
Disturbance: "Susan" (TD #09) - 2247 Z (8/24/76)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2247Z | 23.0N | 154.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1928 | -171.74 | 05 00 52 Z | 0511 Z | Do | | | |
| 1929 | 162.44 | 07 42 39 Z | 0749 Z | Do | | | |
| 1936 | -14.32 | 19 35 06 Z | 20 21 Z | 202830 | 202843 | 802 | 264 |
| 1937 | -39.64 | 21 16 55 Z | 2159 Z | 215841 | 220922 | 802 | 264 |
| | | | | | | | |
| | | | | | | | |

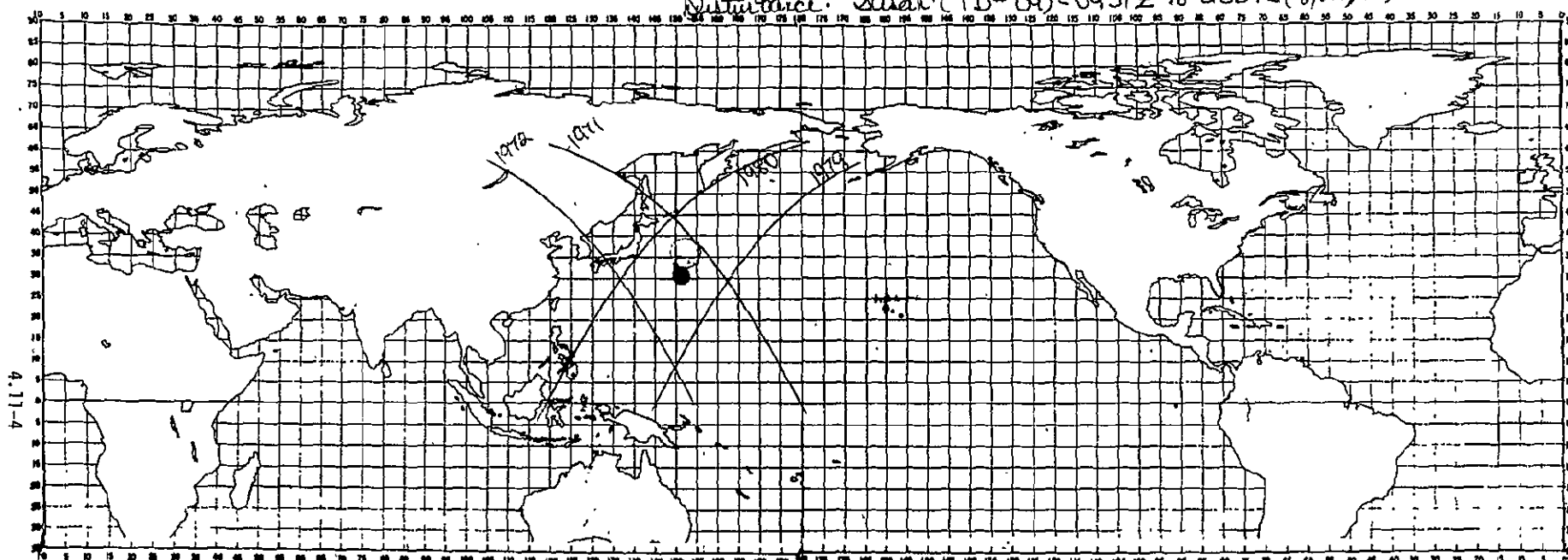


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0934Z | 83.0N | 153.5E |
| 2147Z | 24.0N | 154.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1942 | -166.26 | 05 46 51 Z | 05 58 Z | No | | | |
| 1943 | 168.41 | 07 27 38 Z | 07 35 Z | No | | | |
| 1943 | 168.41 | 07 27 38 Z | 09 14 Z | 085414 | 091908 | 802 | 265 |
| 1950 | -8.85 | 19 20 08 Z | 20 06 Z | No | | | |
| 1951 | -34.17 | 21 01 55 Z | 21 45 Z | No | | | |
| | | | | | | | |

Disturbance: "Susan" (TD# 09) - 0937Z to 0334Z (8/27/75)

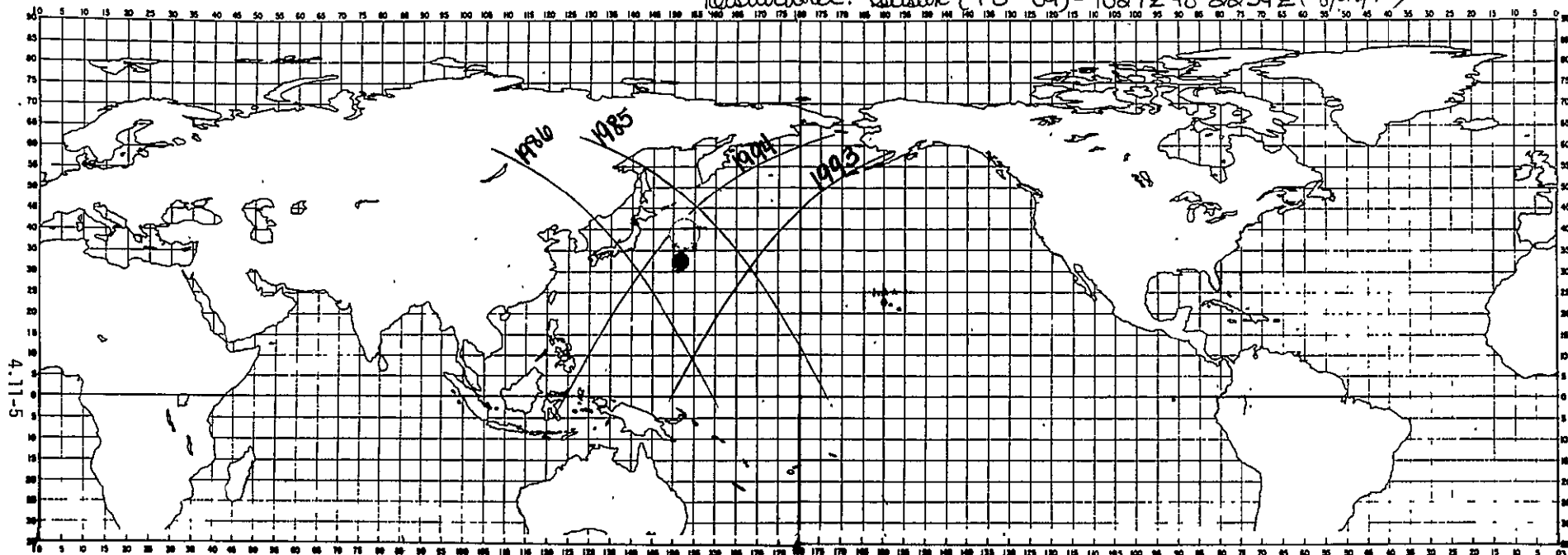


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0937Z | 30.0N | 152.0E |
| 0334Z | 31.7N | 151.8E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1971 | 179.37 | 06 57 36 Z | 07 09 Z | No | | | |
| 1972 | 154.04 | 08 38 24 Z | 08 46 Z | No | | | |
| 1979 | -23.22 | 20 31 53 Z | 21 15 Z | 211745 | 212752 | 802 | 298 |
| 1980 | -48.54 | 22 13 41 Z | 22 54 Z | 225402 | 230331 | 802 | 300 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Susan" (TD #09) - 1027Z to 2234Z (8/28/75)

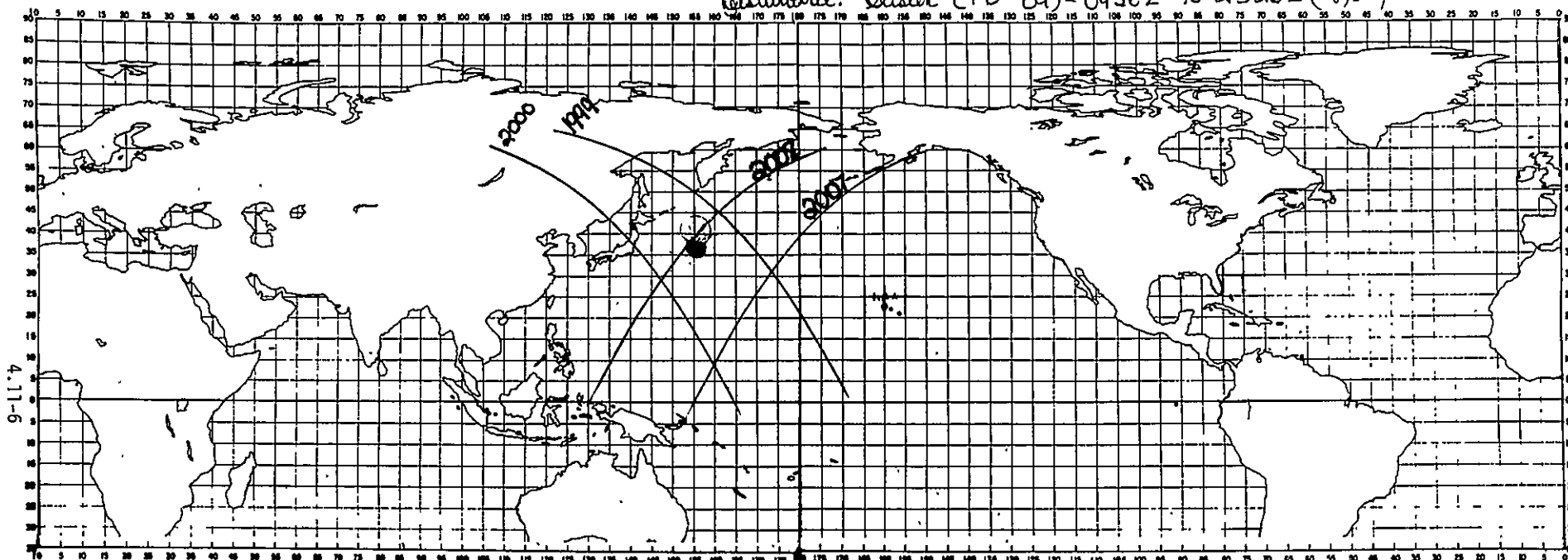


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1027Z | 30.0N | 151.5E |
| 2234Z | 34.7N | 152.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1985 | -175.16 | 06 42 36 Z | 0656 Z | 10 | | | |
| 1986 | 159.62 | 08 24 23 Z | 0832 Z | 10 | | | |
| 1993 | -17.75 | 20 16 53 Z | 21 00 Z | 204814 | 211040 | 802 | 307 |
| 1994 | -43.07 | 21 58 40 Z | 22 39 Z | 223952 | 225008 | 802 | 309 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Jusar" (TD #09) - 0930Z to 2326Z (8/29/75)

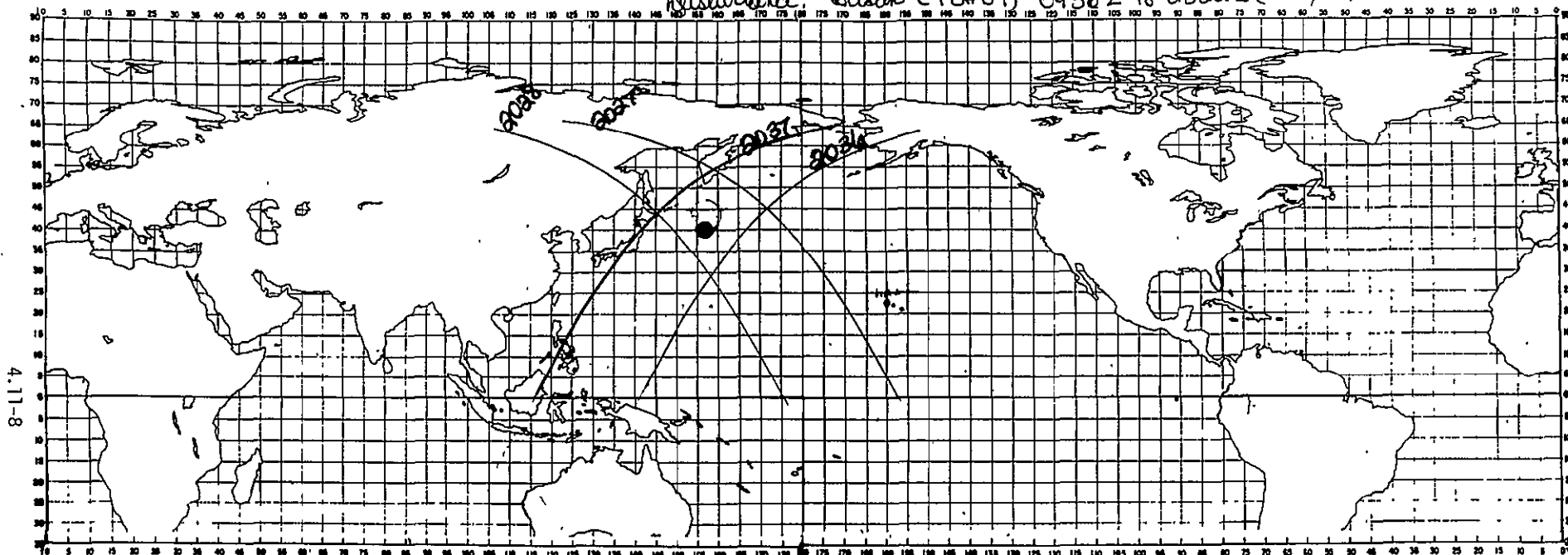


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0930Z | 36.0N | 154.3E |
| 2326Z | 36.3N | 156.8E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 1999 | -169.68 | -06 27 35 Z | 06 41 Z | No | | | |
| 2000 | 164.99 | 08 09 22 Z | 08 18 Z | No | | | |
| 2007 | -12.27 | 20 01 52 Z | 20 44 Z | 204001 | 205633 | 802 | 317 |
| 2008 | -37.59 | 21 43 39 Z | 22 23 Z | 221308 | 223637 | 802 | 319 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Susan" (TD#09) - 0936Z to 2322Z (8/31/75)

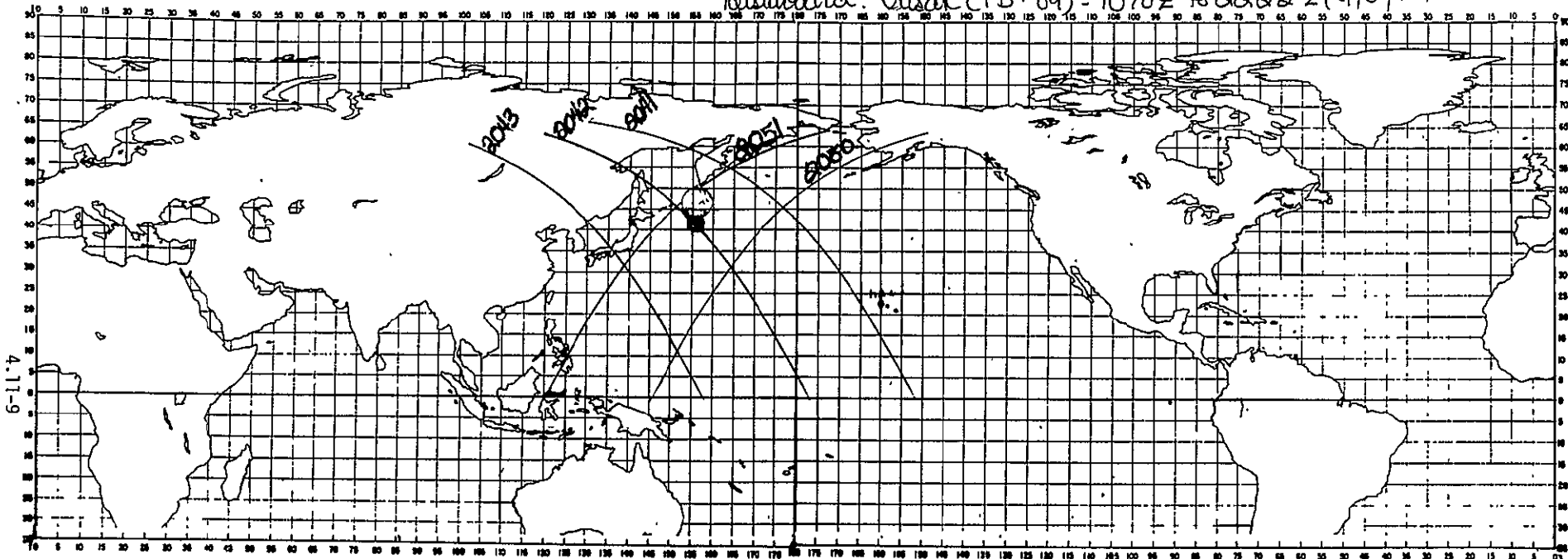


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0936Z | 39.2N | 158.0E |
| 2322Z | 39.3N | 157.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 8028 | -158.74 | 05 57 34 Z | 06 14 Z | No | | | |
| 8028 | 175.94 | 07 39 21 Z | 07 51 Z | No | | | |
| 8036 | -26.85 | 21 13 03 Z | 21 52 Z | No | | | |
| 8037 | -51.07 | 22 55 25 Z | 23 31 Z | 233523 | 234404 | 862 | 337 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Yusa" (TD*09) - 1070Z to 0202Z (9/01/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1070Z | 40.7N | 156.2E |
| 0202Z | 41.0N | 156.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 8011 | -153.28 | 05 42 33 Z | 06 01 Z | No | | | |
| 8042 | -178.53 | 07 04 20 Z | 07 37 Z | No | | | |
| 8043 | 156.09 | 09 06 07 Z | 09 16 Z | No | | | |
| 8050 | -21.17 | 20 58 37 Z | 21 39 Z | No | | | |
| 8051 | -48.49 | 22 40 24 Z | 23 16 Z | 230758 | 233051 | 802 | 349 |

TYPHOON TESS

(August 31 - September 9, 1975)

Meteorological History/Data

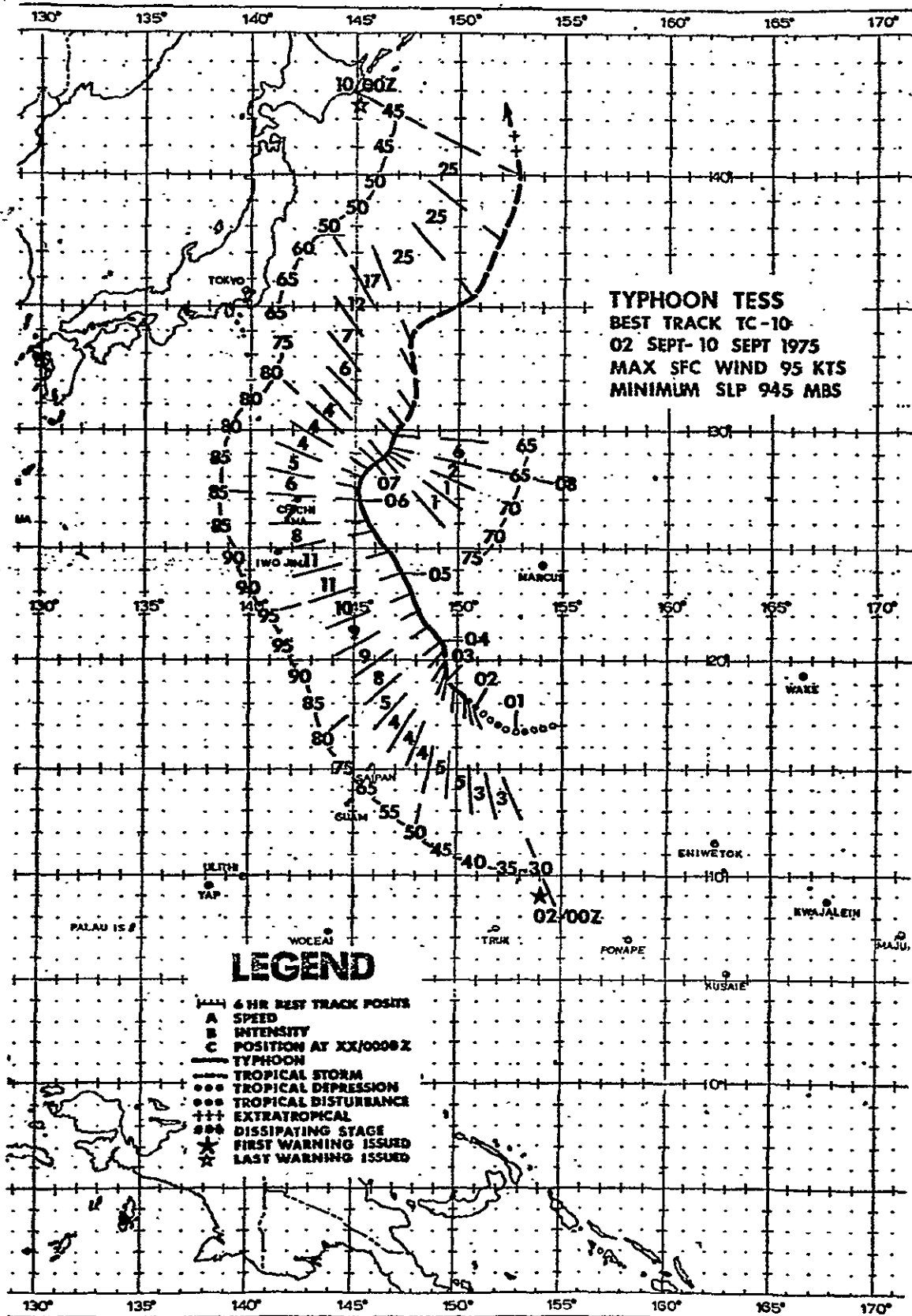
Satellite data on the evening of 31 August first showed preliminary upper-level features indicative of a formative outflow pattern. Divergent flow on the southern side of the persistent tropical upper tropospheric trough was enhancing the tropical cyclone formation process and a closed surface circulation was analyzed in the same area the following morning, 600 nm east-northeast of Saipan. Midtropospheric ridging from Japan to the Dateline initially caused Tess' embryo to drift west-southwest. As this ridge weakened, the system began tracking west-northwest, developing slowly. As the trough migrated toward the north, an anticyclone was established over the surface circulation, which was now located 280 nm east of Pagan Island in the northern Mariana Islands.

The first warning on Tess was issued on the morning of 2 September after reconnaissance aircraft and satellite data indicated rapid development. Tess was upgraded to a typhoon on the 3rd at 1200Z when reconnaissance aircraft reported surface winds of 75 knots approximately 250 nm west of the Maug Islands. The typhoon was now moving in a more northerly direction toward a weakness in the collapsing midtropospheric ridge to the north. Thirty hours later on the 4th at 1800Z, Tess reached a minimum central pressure of 945 mb and maximum sustained surface winds of 95 knots.

Tropical Storm Viola had formed approximately 1200 nm southwest of Tess on the 4th and subsequently moved within 900 nm of Tess before dissipating on the 7th. Viola's presence helps explain Tess' reduced speed of movement and irregular track during this period. On the 7th at 0000Z, the SS OREGON reported estimated surface winds of 65 knots while 60 nm east-southeast of the storm's center. Tess maintained typhoon intensity until the 8th at 1800Z, when it moved into a hostile environment of colder water and began interacting with an approaching frontal system. Satellite data indicated that the typhoon was becoming extratropical, and by the morning of the 10th Tess had merged into the frontal system.

Damage Estimates

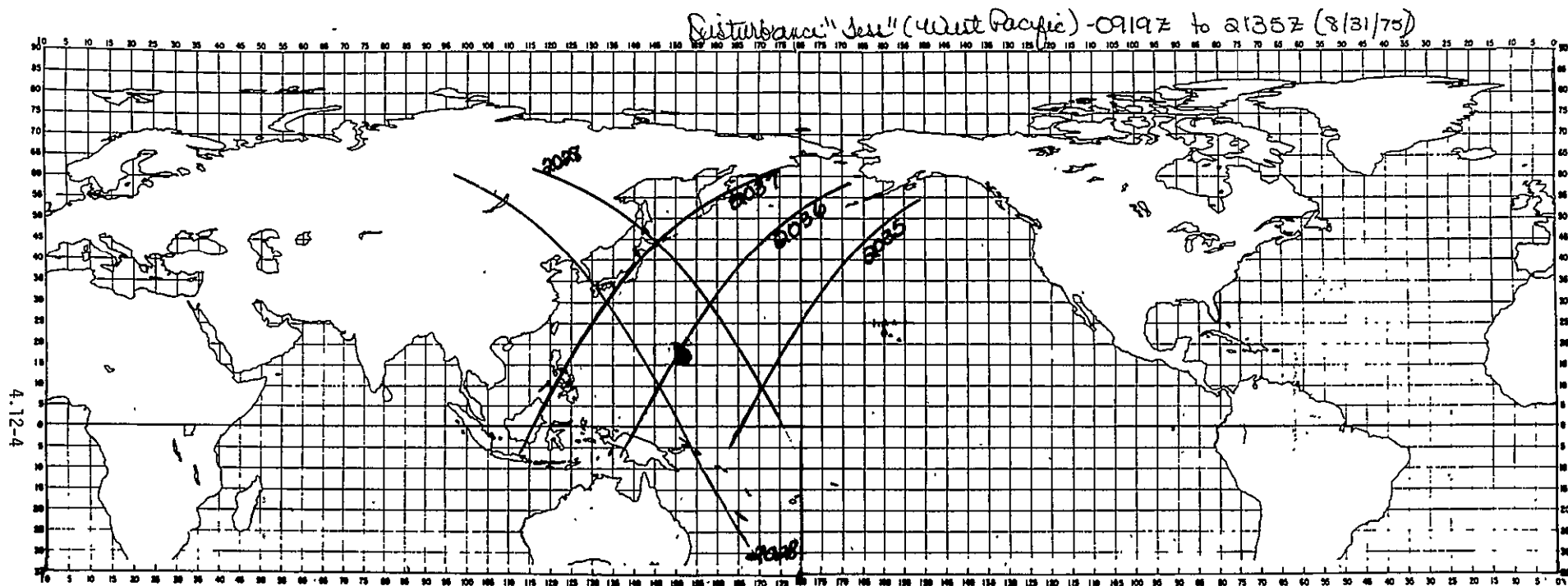
The entire life time of Tess was spent between 153E and 145E, an area of the western North Pacific having few populated islands. This system did little if any damage during its ten day lifespan.



DISTURBANCE: "TFSS" TD-10: (WESTERN PACIFIC)

DATE: AUG 31 - SEPT 9, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------------------|----------------------------------|--------------------------|----------------|---------------|-------------------------------|
| | | Latitude | Longitude | | | |
| 8/31 | 0919Z 2135Z | 18.5N 16.9 | 153.2E 153.1 | | | |
| 9/1 | 1013Z 2229Z | 17.0N 17.8 | 151.4E 150.4 | | | |
| 9/2 | 1108Z 2323Z | 19.0N 19.0 | 150.0E 149.0 | | | |
| 9/3 | 1009Z 2223Z | 19.5N 20.0 | 149.2E 148.8 | | 75 | Typhoon (upgraded at 1200Z) |
| 9/4 | 1105Z 2317Z | 22.5N 23.9 | 148.0E 146.9 | 945 (1300Z) | 95 (1800Z) | Typhoon |
| 9/5 | 1006Z 2216 | 25.7N 26.5 | 146.8E 146.0 | | | |
| 9/6 | 1102Z 2310Z | 28.1N 28.3 | 145.1E 145.2 | | | |
| 9/7 | 1002Z | 29.0N | 146.3E | | 65 (0000Z) | Typhoon |
| 9/8 | 0005Z 1057Z 2305Z | 28.7N 30.3 30.8 | 146.3E 147.6 148.0 | | | Became extratropical at 1800Z |
| 9/9 | 0959Z 2356Z | 34.2N 39.0 (No Convection) | 150.0E 153.2 | | | |

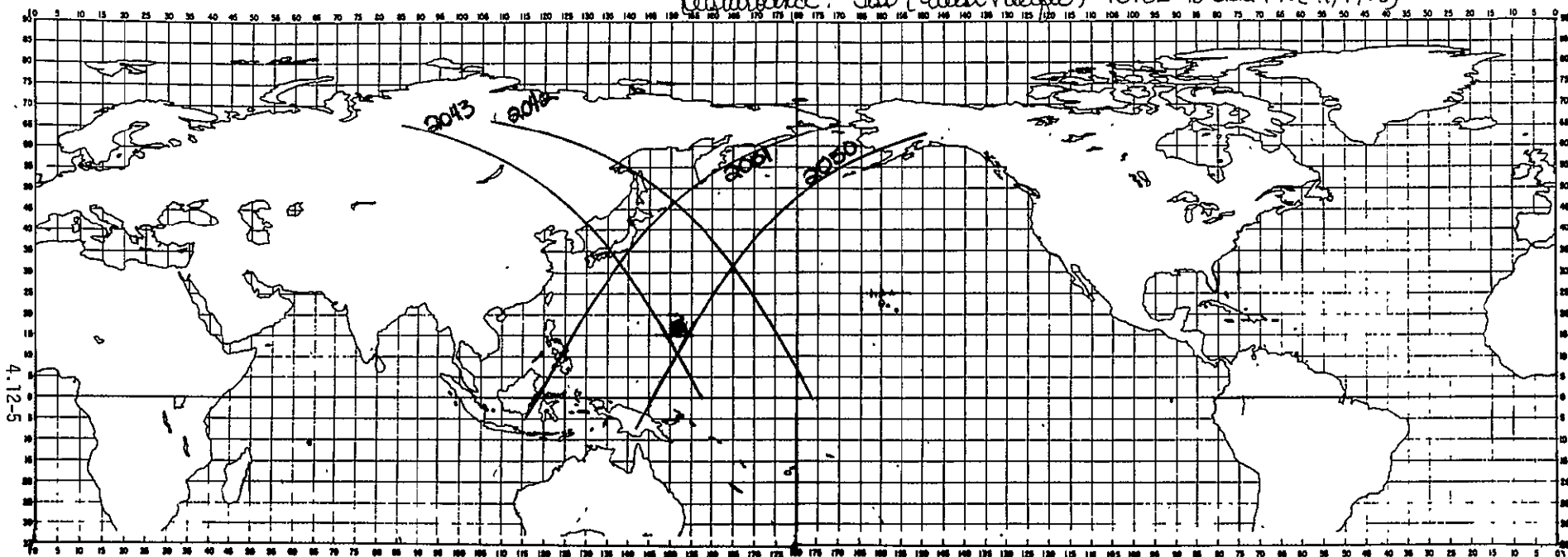


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0919Z | 18.5N | 153.2E |
| 2135Z | 16.9N | 153.1E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2028 | 175.94 | 07 39 21 Z | 07 46 Z | No | | | |
| 2028 | 175.94 | 07 39 21 Z | 09 26 Z | 090025 | 093106 | 802 | 332 |
| 2035 | -1.32 | 19 31 51 Z | 20 20 Z | No | | | |
| 2036 | -26.65 | 21 13 03 Z | 21 58 Z | No | | | |
| 2037 | -51.07 | 22 56 25 Z | 23 39 Z | 233523 | 234404 | 802 | 337 |

Disturbance: "Juv" (West Pacific) - 1013Z to 2229Z (9/1/78)

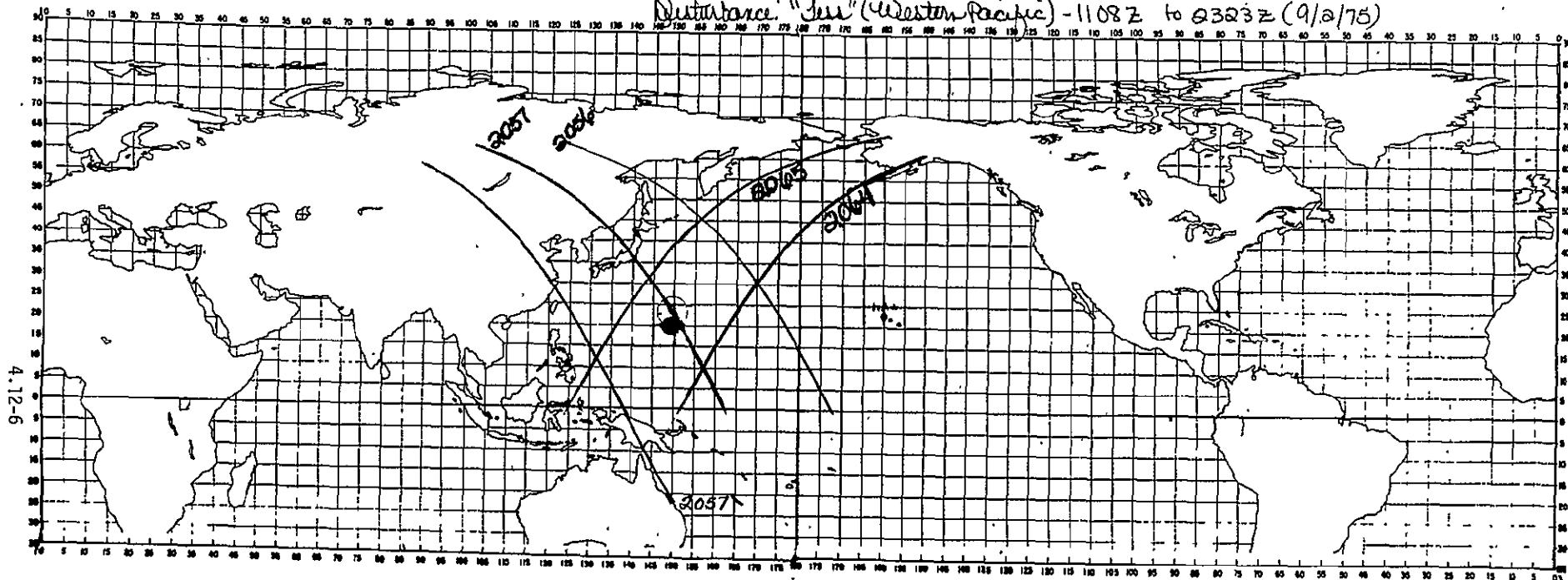


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1013Z | 17.0N | 151.4E |
| 2229Z | 17.8N | 150.4E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2042 | -178.58 | 07 24 30 Z | 07 32 Z | No | | | |
| 2043 | 158.09 | 09 06 07 Z | 09 11 Z | No | | | |
| 2050 | -21.17 | 20 58 37 Z | 21 45 Z | No | | | |
| 2051 | -48.49 | 22 40 24 Z | 23 24 Z | 232103 | 233054 | 802 | 949 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Jui" (Western Pacific) - 1108Z to 2323Z (9/2/75)

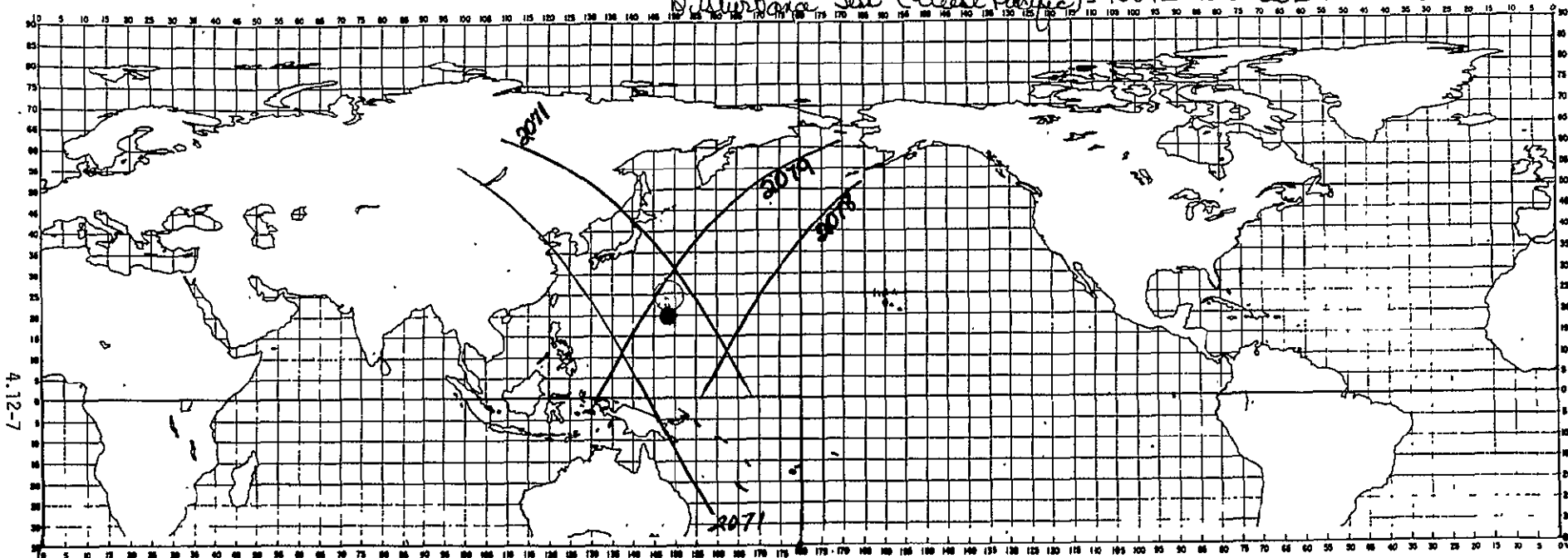


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1108Z | 19.0N | 150.0E |
| 2323Z | 19.0N | 149.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----------------|--------|------|--------|
| 2056 | 173.11 | 07 09 19 Z | 07 17 Z | D ₀ | | | |
| 2057 | 161.56 | 08 51 07 Z | 08 57 Z | D ₀ | | | |
| 2057 | 161.56 | 08 51 07 Z | 10 37 Z | 101604 | 104102 | 802 | 351 |
| 2064 | -15.70 | 20 43 38 Z | 21 30 Z | D ₀ | | | |
| 2065 | -41.02 | 22 25 23 Z | 23 08 Z | 230655 | 231729 | 802 | 360 |

Disturbance "Lee" (West Pacific) - 1009Z to 2233Z (9/3/75)

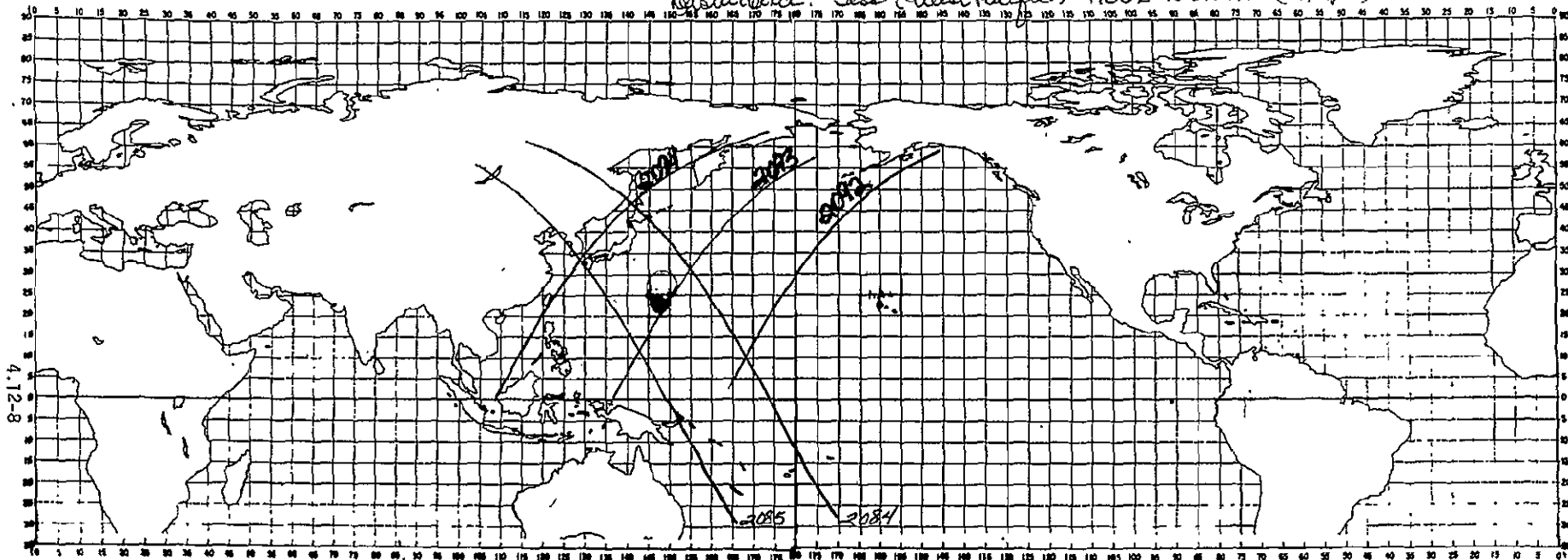


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1009Z | 19.5N | 149.2E |
| 2233Z | 20.0N | 149.8E |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2071 | 147.04 | 08 34 06 Z | 08 41 Z | No | | | |
| 2071 | 147.04 | 08 34 06 Z | 10 23 Z | 095600 | 102719 | 803 | 364 |
| 2078 | -10.22 | 20 23 35 Z | 21 10 Z | 211858 | 212529 | 803 | 369 |
| 2079 | -35.55 | 22 10 23 Z | 22 54 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Jesse" (West Pacific) - 1105Z to 2317Z (9/4/75)

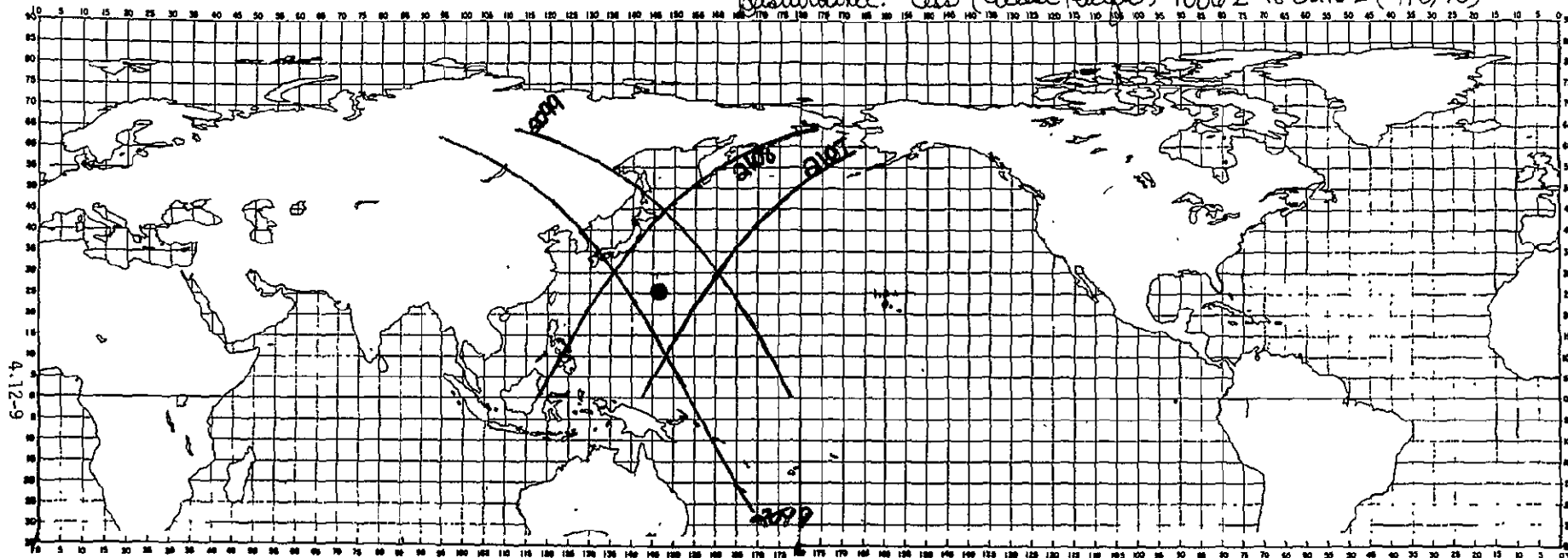


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1105Z | 22.5N | 148.0E |
| 2317Z | 23.9N | 146.9E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2084 | -162.16 | 06 39 18 Z | 08 30 Z | 080448 | 083617 | 802 | 374 |
| 2085 | 172.52 | 08 21 05 Z | 10 09 Z | 094141 | 101319 | 802 | 375 |
| 2090 | -4.75 | 20 13 25 Z | 21 00 Z | No | | | |
| 2093 | -30.07 | 21 52 22 Z | 22 30 Z | No | | | |
| 2094 | -59.40 | 23 37 09 Z | 00 19 Z | 001640 | 002422 | 802 | 383 |

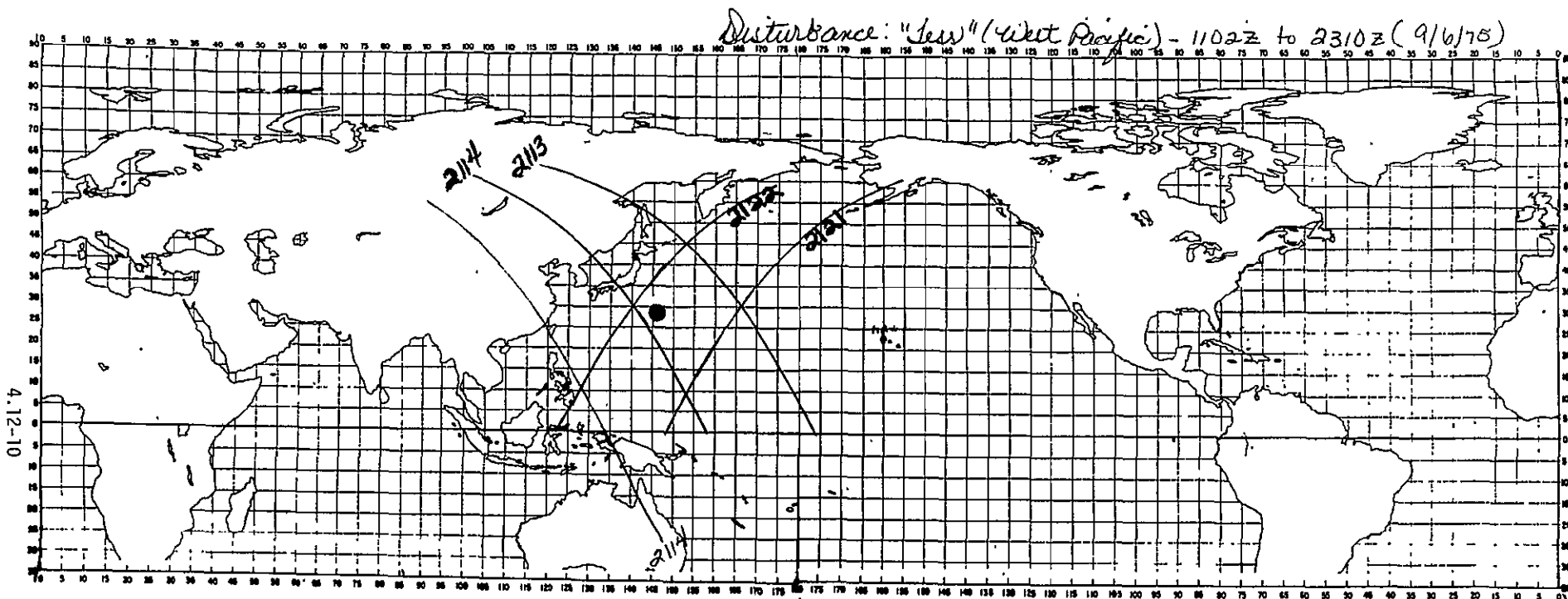
Disturbance: "Cen" (West Pacific) - 1006Z to 0216Z (9/5/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1006Z | 25.7N | 177.9E |
| 0216Z | 25.5N | 176.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2099 | 177.99 | 08 06 04 Z | 08 16 Z | No | | | |
| 2099 | 177.99 | 08 06 04 Z | 09 55 Z | 092727 | 095904 | 802 | 385 |
| 2107 | -04.60 | 21 40 21 Z | 22 04 Z | No | | | |
| 2108 | -49.92 | 23 22 08 Z | 00 04 Z | 000321 | 001151 | 802 | 393 |
| | | | | | | | |
| | | | | | | | |

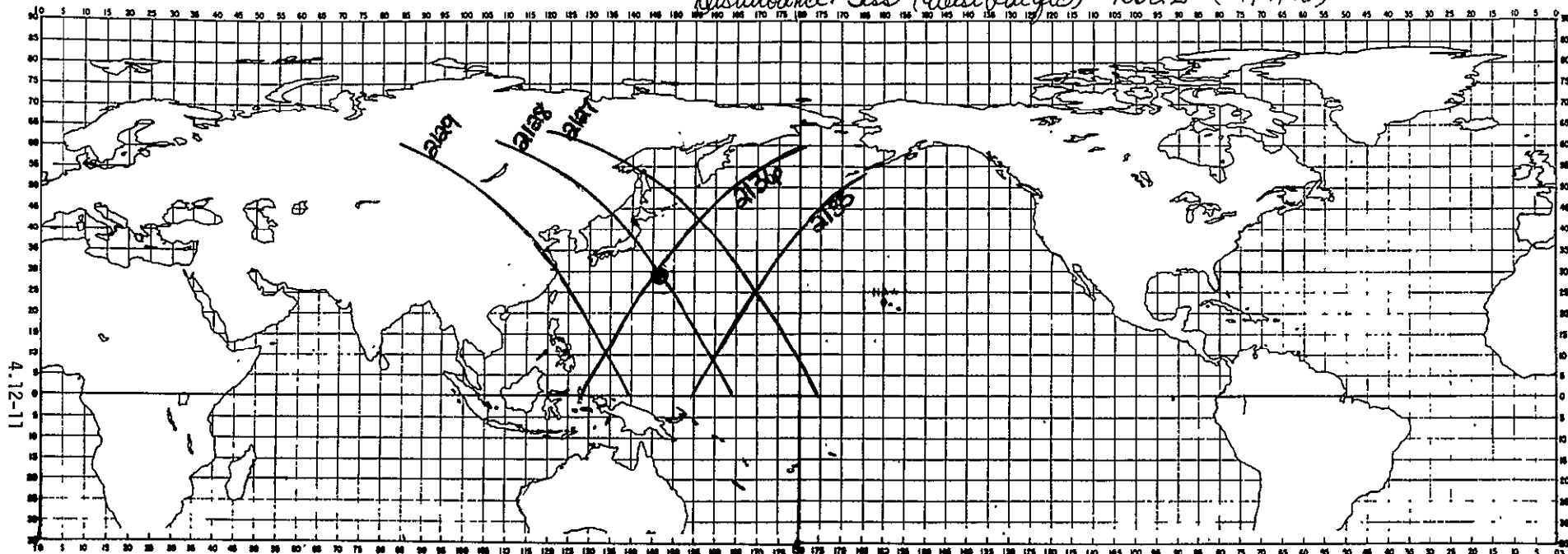


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1102Z | 28.1N | 145.1E |
| 2310Z | 28.3N | 145.2E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----------------|--------|------|--------|
| 2113 | -176.55 | 07 51 03 Z | 08 03 Z | D ₀ | | | |
| 2114 | 158.14 | 09 32 51 Z | 09 40 Z | D ₀ | | | |
| 2121 | -19.12 | 21 25 20 Z | 22 09 Z | D ₀ | | | |
| 2122 | -44.44 | 23 07 07 Z | 23 48 Z | 234808 | 235813 | 802 | 405 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Jett" (west Pacific) - 1002Z (9/7/76)



4.12-11

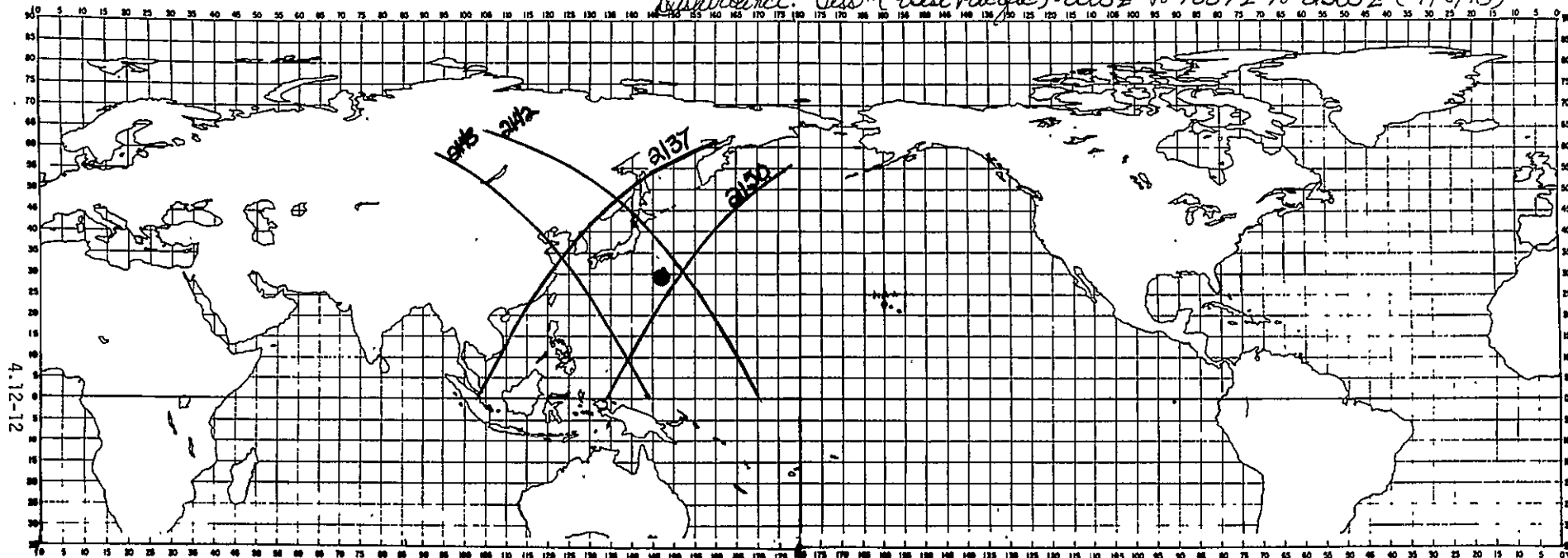
LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1002Z | 29.0N | 146.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2127 | -171.06 | 07 36 03 Z | 07 18 Z | No | | | |
| 2128 | 163.61 | 09 17 50 Z | 09 27 Z | No | | | |
| 2129 | 158.29 | 10 53 37 Z | 11 00 Z | No | | | |
| 2135 | -13.65 | 21 10 20 Z | 21 54 Z | No | | | |
| 2136 | -38.97 | 22 52 07 Z | 23 34 Z | No | | | |

C-2

Disturbance: "Jesse" (West Pacific) - 0005Z to 1057Z to 2305Z (9/8/75)



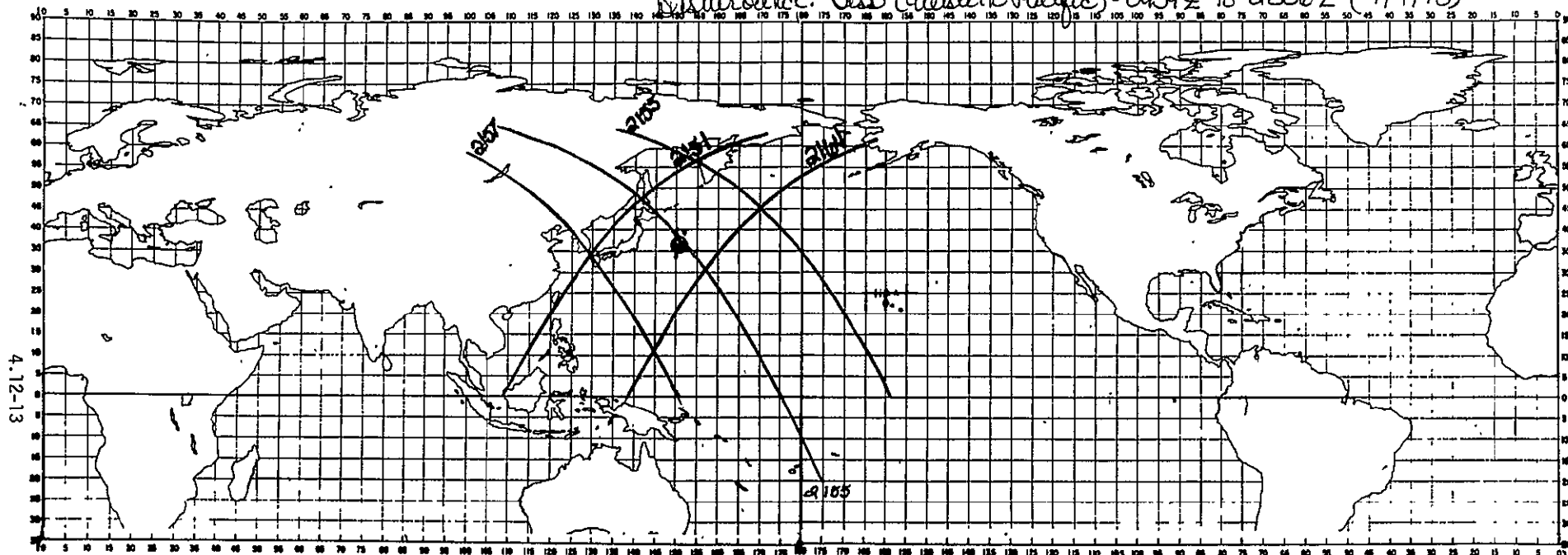
4.12-12

LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0005Z | 28.7N | 146.3E |
| 1057Z | 30.3N | 147.6E |
| 2305Z | 30.8N | 148.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 0137 | -64.30 | 00 33 54 Z | 01 11 Z | No | | | |
| 0142 | 169.09 | 09 02 49 Z | 09 13 Z | No | | | |
| 0143 | 143.77 | 10 44 36 Z | 10 52 Z | No | | | |
| 0150 | -33.50 | 22 37 08 Z | 23 20 Z | 232001 | 233025 | 802 | 421 |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Jesse" (Western Pacific) - 0959Z to 2356Z (9/9/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0959Z | 34.2N | 150.0E |
| 2356Z | 39.0N | 153.2E |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2151 | -58.92 | 00 18 53 Z | 00 55 Z | No | | | |
| 2155 | -160.11 | 07 06 01 Z | 07 22 Z | No | | | |
| 2155 | -160.11 | 07 06 01 Z | 08 59 Z | 083148 | 084654 | 802 | 424 |
| 2157 | 149.24 | 10 29 35 Z | 10 39 Z | No | | | |
| 2164 | -28.02 | 22 22 05 Z | 23 03 Z | No | | | |
| | | | | | | | |

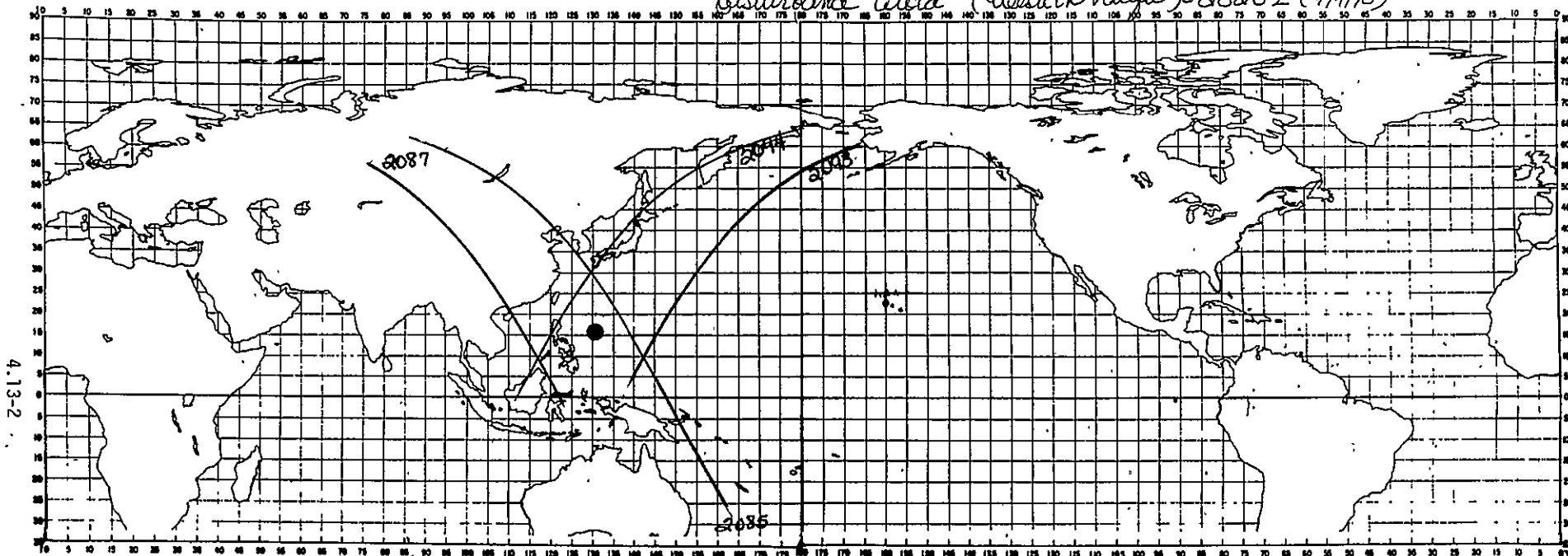
DISTURBANCE: "VIOLA" TD-11; (WESTERN PACIFIC)

DATE: SEPT 4 - SEPT 7, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------|----------|-----------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 9/4 | 2320Z | 15.6N | 130.8E | | | |
| 9/5 | 1159Z | 15.8N | 131.0E | | | |
| 9/6 | 0015Z | 16.2N | 131.5E | | | |
| | 1059Z | 19.0 | 133.0 | | | |
| | 2314Z | 20.0 | 135.0 | | | |
| 9/7 | 1155Z | 22.0N | 136.0E | | | |

NOTE: See track map, page 4.1-7

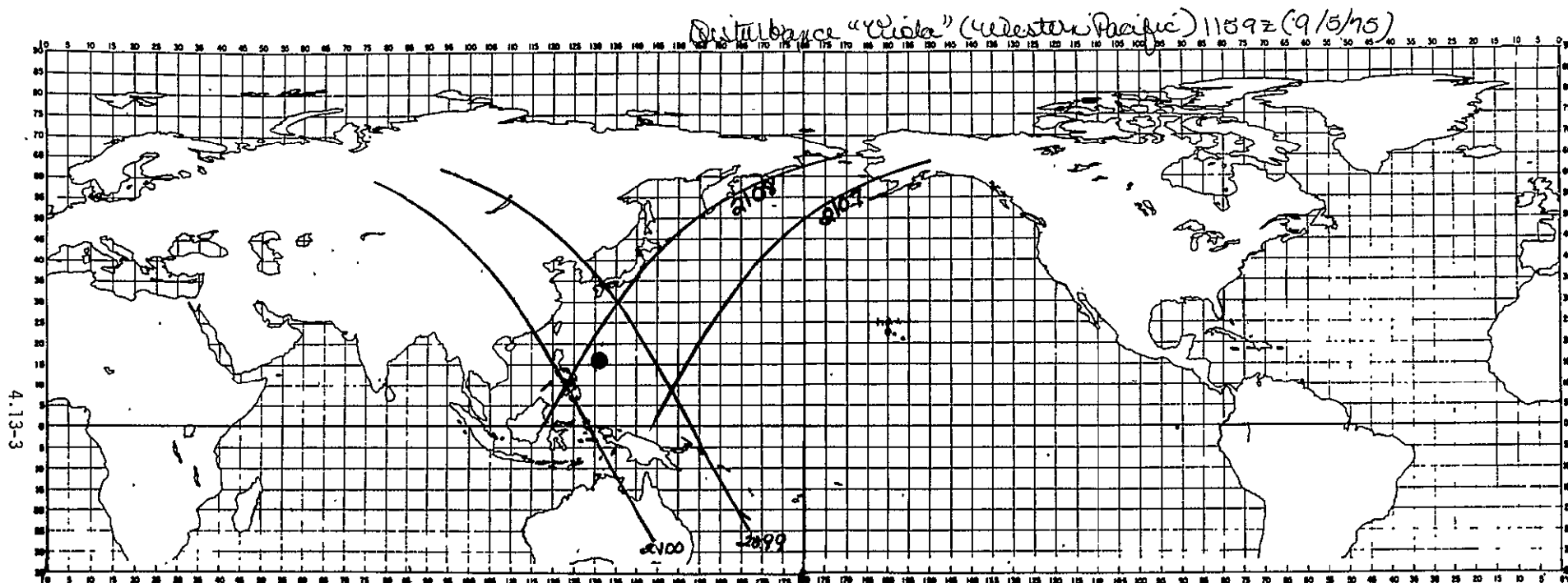
Disturbance "Tiola" (Western Pacific) - 0300Z (9/4/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0300Z | 15.6N | 130.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2085 | 172.50 | 08 21 05Z | 10 09 Z | 094141 | 101319 | 802 | 375 |
| 2087 | 121.87 | 11 44 39 Z | 11 47 Z | No | | | |
| 2093 | -30.07 | 21 53 22 Z | 22 43 Z | No | | | |
| 2094 | -55.40 | 23 37 00 Z | 00 22 Z | 001640 | 002423 | 802 | 383 |
| | | | | | | | |
| | | | | | | | |

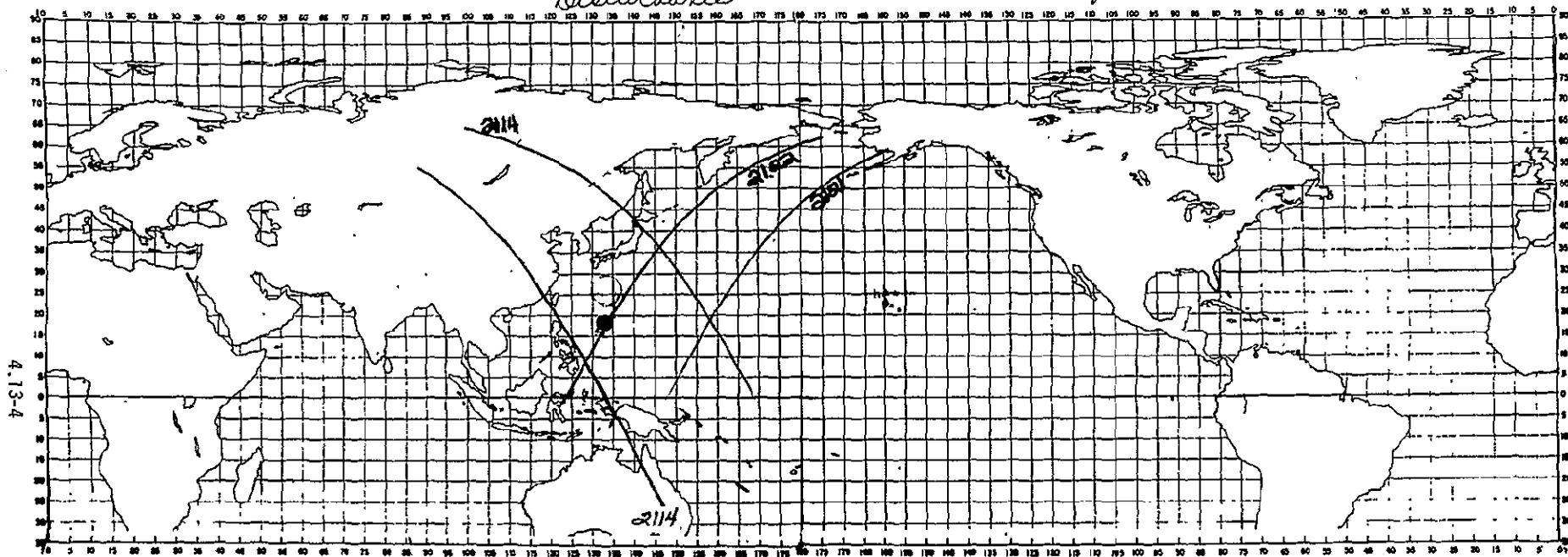


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1159Z | 15.8N | 131.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2099 | 177.98 | 08 06 04Z | 09 54 Z | 092727 | 090904 | 802 | 385 |
| 2100 | 152.67 | 09 47 51Z | 11 25 Z | 110604 | 113435 | 802 | 386 |
| 2107 | -24.60 | 21 40 21Z | 22 28 Z | No | | | |
| 2108 | -49.92 | 23 22 08 Z | 00 08 Z | 000321 | 001131 | 802 | 393 |
| | | | | | | | |
| | | | | | | | |

Disturbance 'Vivla' (Western Pacific) 0015Z to 2314Z (9/6/75)

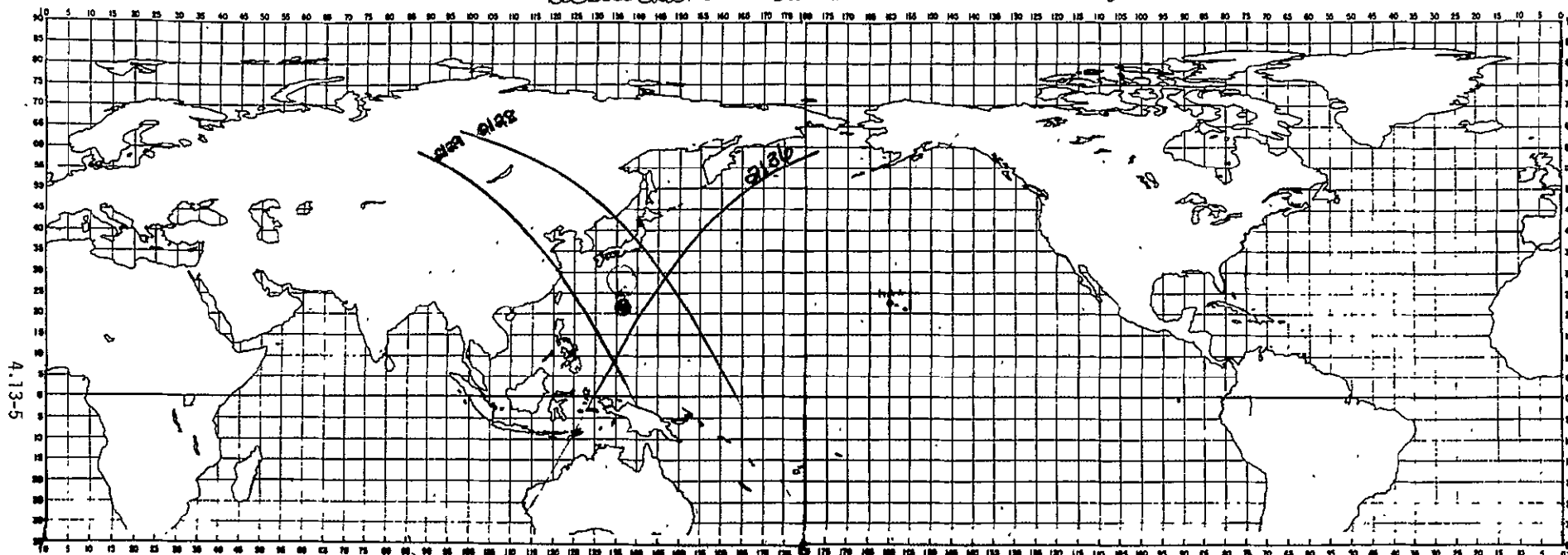


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0015Z | 16.2N | 131.5E |
| 1059Z | 19.0N | 133.0E |
| 2314Z | 20.0N | 135.0E |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2114 | 168.14 | 09 32 51 Z | 09 42 Z | No | | | |
| 2114 | 168.14 | 09 32 51 Z | 11 20 Z | 105140 | 112146 | 802 | 395 |
| 2121 | -19.12 | 21 25 20 Z | 22 12 Z | No | | | |
| 2122 | -44.44 | 23 07 07 Z | 23 52 Z | 234808 | 235813 | 802 | 405 |
| | | | | | | | |
| | | | | | | | |

Disturbance "Viola" (Western Pacific) 1155Z (9/1/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1155Z | 22.0N | 136.0E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2128 | 143.61 | 09 17 50 Z | 09 26 Z | No | | | |
| 2129 | 138.29 | 10 52 37 Z | 10 59 Z | No | | | |
| 2136 | -38.97 | 22 52 07 Z | 23 37 Z | No | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON WINNIE

(September 7 - September 12, 1975)

Meteorological History/Data

Winnie was first detected by satellite on 5 September as a weak tropical disturbance approximately 300 nm northwest of Wake Island. At this time Typhoon Tess was approximately 900 nm to the northwest of Winnie with a surface trough extending southeastward to Wake Island. The combination of surface troughing and a favorable upper air pattern allowed this disturbance to develop. The first warning was issued early on the morning of the 9th based on satellite data.

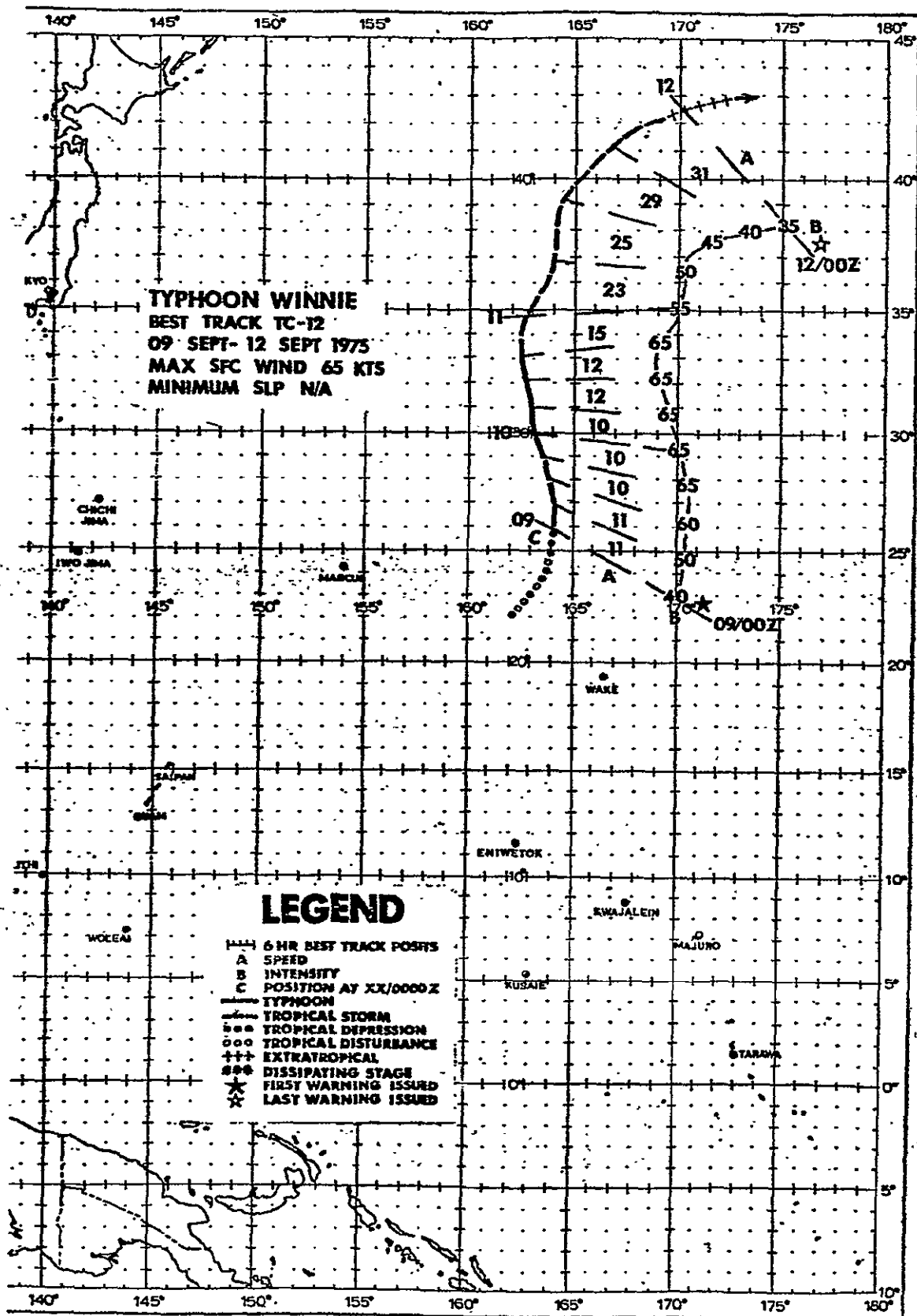
From her initial detection as a disturbance, Winnie moved slowly north-northeastward, attaining minimal tropical storm intensity at 2100Z on the 8th. The storm was now 400 nm north-northwest of Wake Island and posed no significant threat to any inhabited islands.

From the time of initial tropical storm strength until 1200Z on the 11th, Winnie was steered on a northerly course by the combination of a sharp mid-tropospheric trough to the west and a blocking ridge to the east. A 200 mb trough extending to the west of Winnie inhibited development past minimal typhoon strength with typhoon force winds persisting only for a 24-hour period from 1800Z on the 9th to 1800Z on the 10th. A Japanese ship (JEEU), located approximately 35 nm north of Winnie, reported sustained winds of 65 knots at 1800Z on the 9th.

Approaching a frontal system near 35N, Winnie came under stronger steering flow, accelerated to near 20 knots, and began to weaken. A short wave trough moving through the long wave ridge diminished its amplitude and Winnie assumed a more northeasterly track while continuing to accelerate. By 0000Z on the 12th, Winnie was absorbed into the frontal system and became an extratropical system with maximum winds of 30 knots.

Damage Estimates

Although no threat to inhabited islands, Winnie did represent a threat to shipping. It, in fact, sank a 44-foot sailboat, THE FLATBUSH MAN, on a pleasure cruise from Marcus Island to Hawaii. The four people aboard were adrift for 13 days in a rubber raft until 21 September when a Russian whaling vessel picked them up.

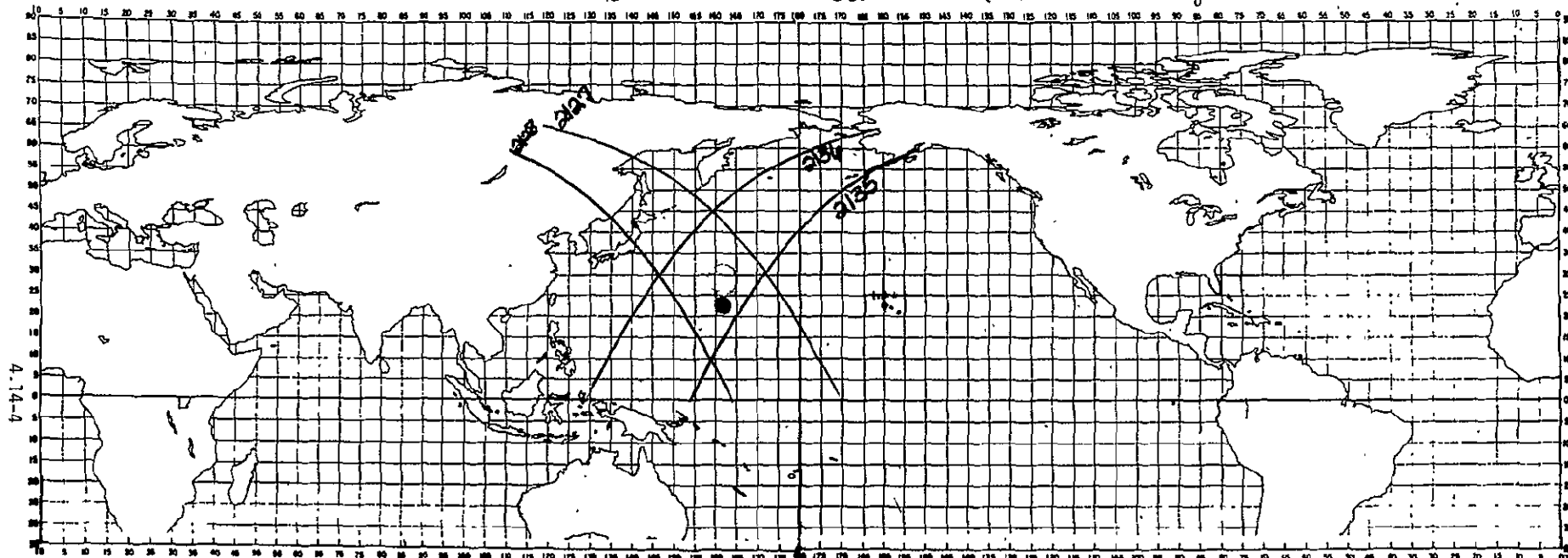


DISTURBANCE: "WINNIE" TD-12: (WESTERN PACIFIC)

DATE: SEPT 7 - SEPT 12, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|---------------|-----------------|------------------|---------------|------------------------|
| | | Latitude | Longitude | | | |
| 9/7 | 1000Z 2212Z | 23.7N 22.5 | 162.0E 161.8 | | | |
| 9/8 | 0901Z 2112Z | 23.8N 25.2 | 163.0E 164.2 | | | Tropical Storm |
| 9/9 | 0956Z 2205Z | 27.1N 30.0 | 163.8E 163.0 | | | Typhoon (1800Z) |
| 9/10 | 0858Z 2238Z | 31.5N 34.0 | 161.8E 161.8 | | | Tropical Storm (1800Z) |
| 9/11 | 0955Z 2157Z | 38.1N 41.7 | 163.9E 168.6 | | | |
| 9/12 | 0857Z | 44.5N | 176.5E | | | Extratropical |

Disturbance "Winnie" (Western Pacific) 1000Z to 2212Z (9/7/75)

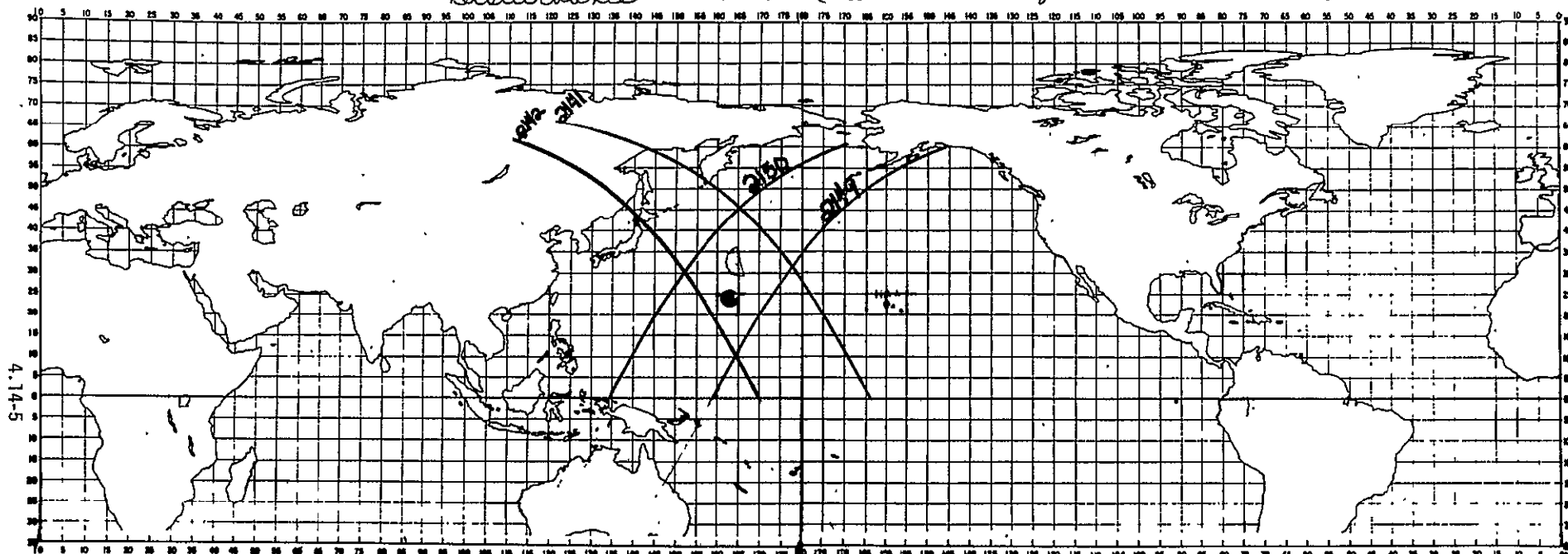


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1000Z | 23.7 N | 162.0 E |
| 2212Z | 22.5 N | 161.8 E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2127 | -171.06 | 07 36 03 Z | 07 45 Z | No | | | |
| 2128 | 163.61 | 09 17 50 Z | 09 24 Z | No | | | |
| 2135 | -13.65 | 21 10 20 Z | 21 54 Z | No | | | |
| 2136 | -38.97 | 22 52 07 Z | 23 34 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance "Ulini" (Western Pacific) 0901Z to 2112Z (9/8/75)

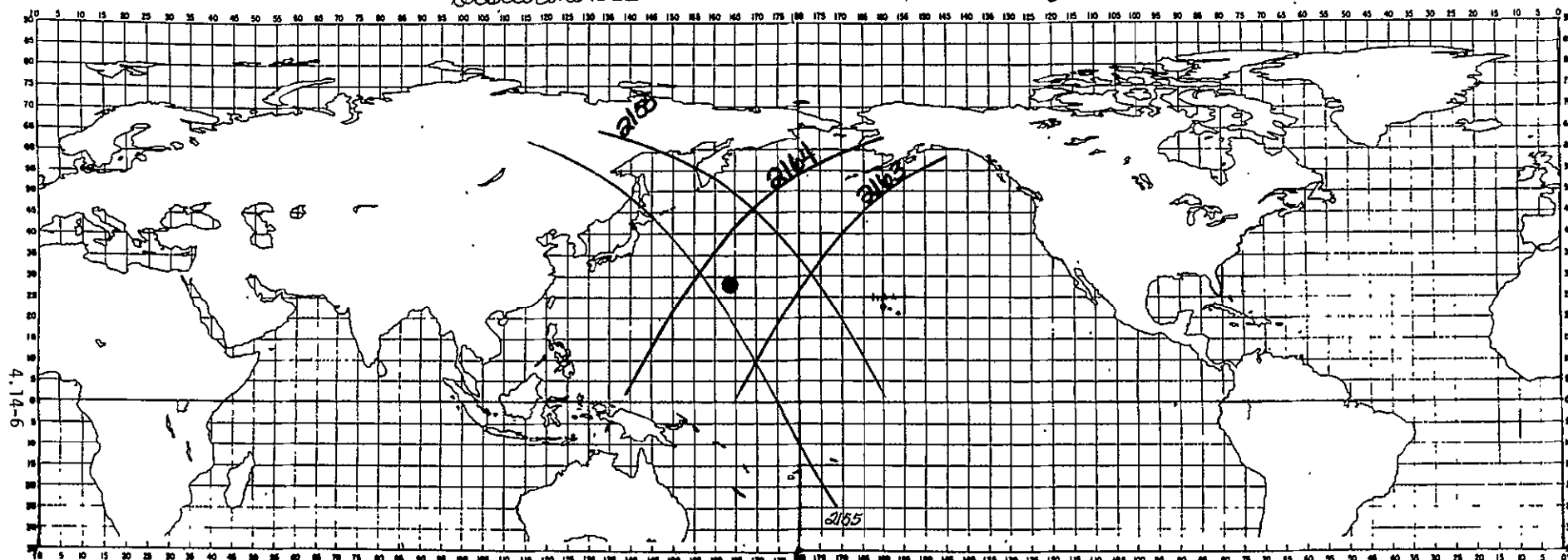


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0901Z | 23.8N | 163.0E |
| 2112Z | 25.2N | 164.2E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2141 | -165.59 | 07 21 02 Z | 07 31 Z | Do | | | |
| 2142 | -169.09 | 09 02 49 Z | 09 09 Z | Do | | | |
| 2149 | -8.17 | 20 55 19 Z | 21 40 Z | 214656 | 213205 | 802 | 420 |
| 2150 | -33.50 | 22 37 08 Z | 23 19 Z | 232001 | 233025 | 802 | 421 |
| | | | | | | | |
| | | | | | | | |

Disturbance "Winnie" (Western Pacific) 0956Z to 2205Z (9/9/75)



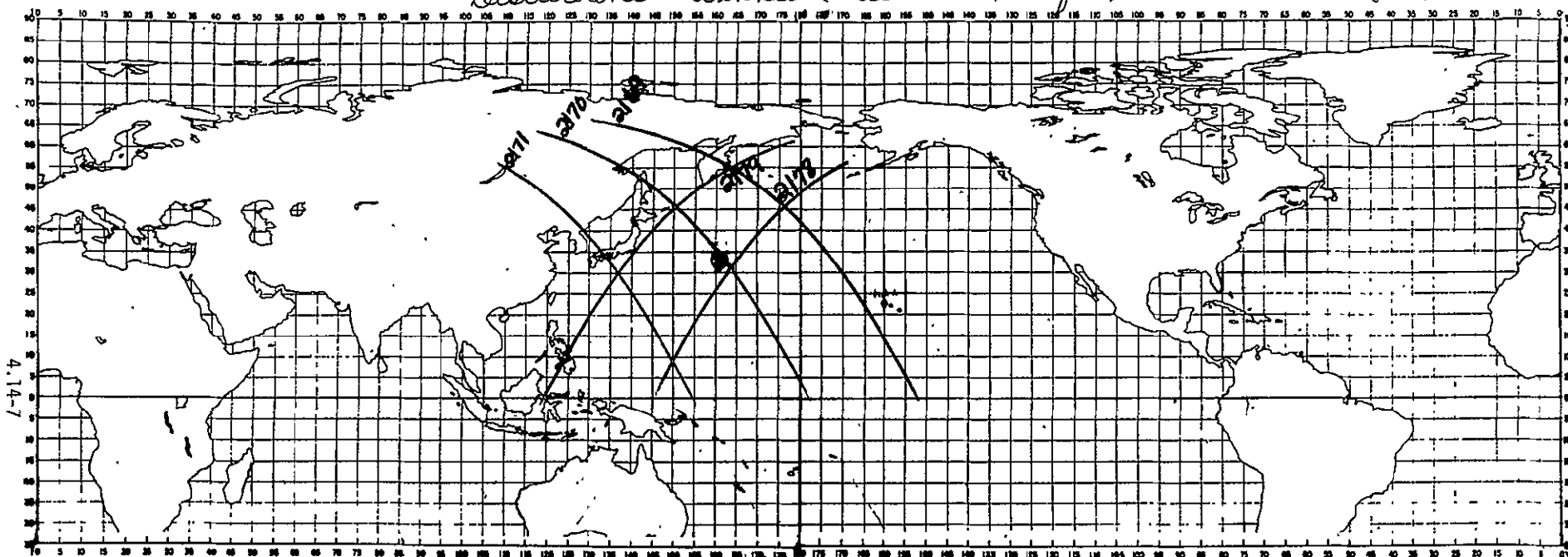
LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0956Z | 27.1N | 163.8E |
| 2205Z | 30.0N | 163.0E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2155 | -160.11 | 07 06 01 Z | 07 18 Z | No | | | |
| 2155 | -160.11 | 07 06 01 Z | 08 56 Z | 083148 | 084634 | 802 | 424 |
| 2163 | -8.70 | 20 40 18 Z | 21 24 Z | No | | | |
| 2164 | -28.02 | 22 22 05 Z | 23 03 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

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Disturbance "Winnie" (Western Pacific) 0858Z to 2238Z (9/10/75)

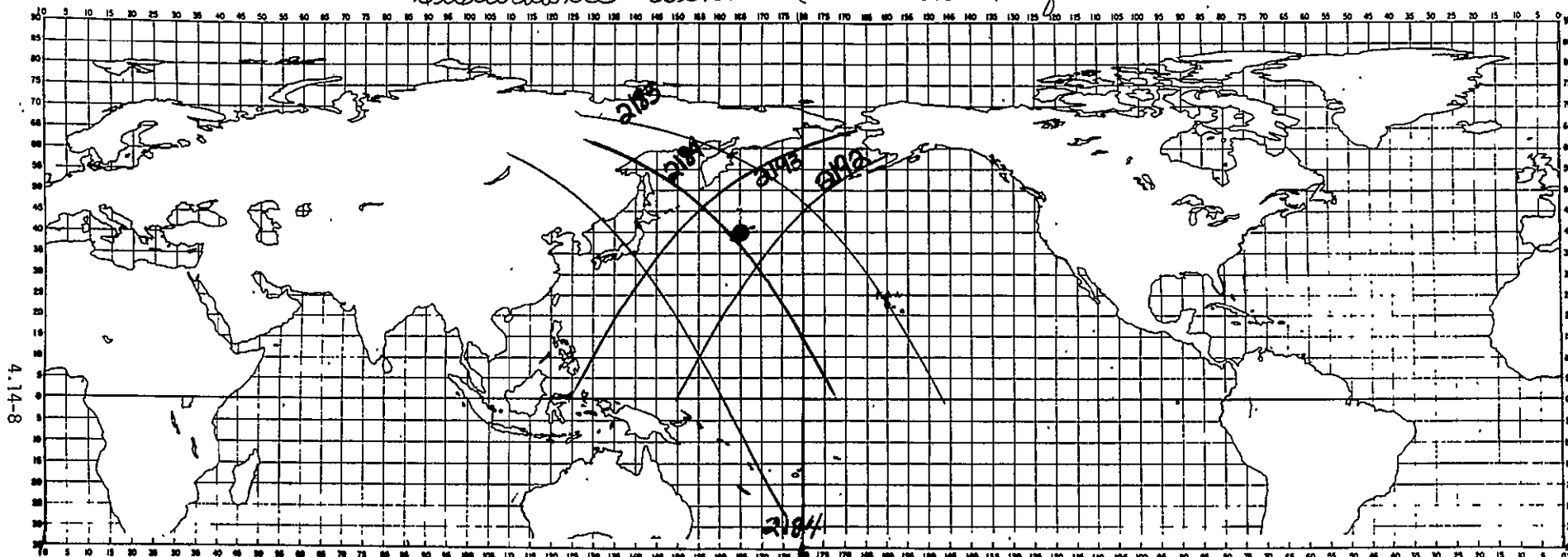


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0858Z | 31.5N | 161.8E |
| 2238Z | 34.0N | 161.8E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2169 | -154.84 | 06 51 01 Z | 07 06 Z | No | | | |
| 2170 | -179.98 | 08 32 48 Z | 08 43 Z | No | | | |
| 2171 | 154.71 | 10 14 35 Z | 10 22 Z | No | | | |
| 2178 | -22.55 | 22 07 04 Z | 22 48 Z | No | | | |
| 2179 | -47.87 | 23 48 51 Z | 00 26 Z | No | | | |

Disturbance "Winnie" (Western Pacific) 0955Z to 2157Z (9/11/78)

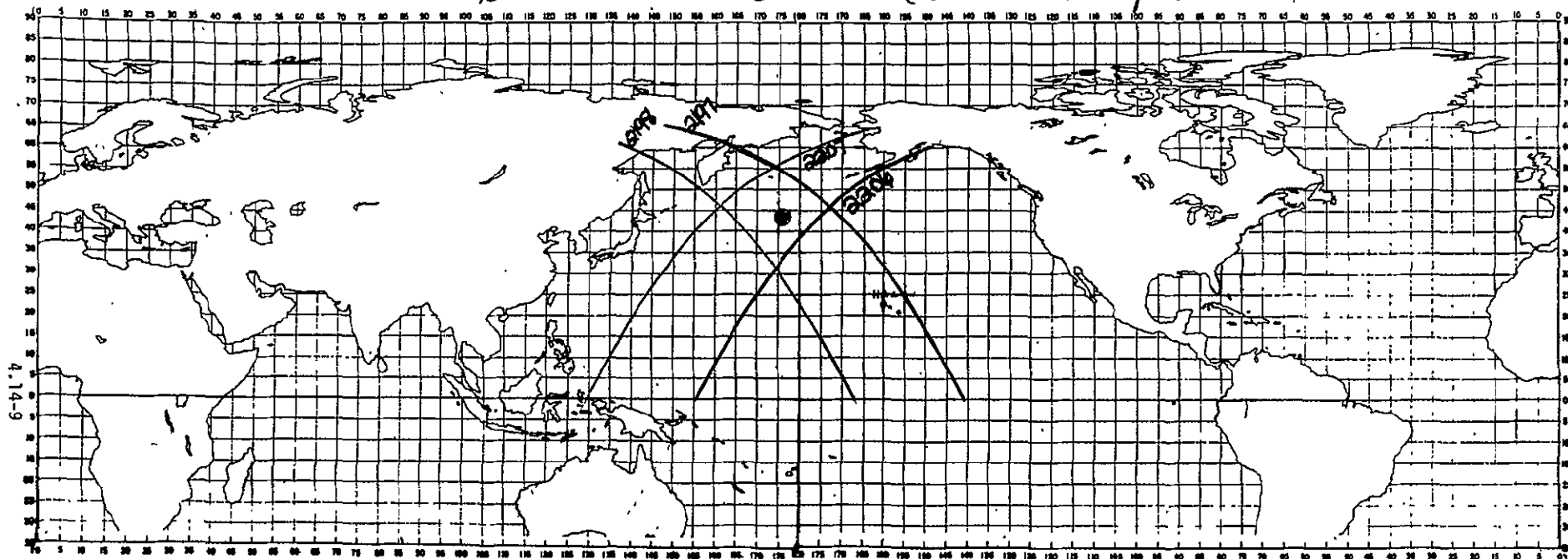


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0955Z | 38.1 N | 163.9 E |
| 2157Z | 41.7 N | 168.6 E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|---------|---------|------|--------|
| 2183 | -149.16 | 06 36 00 Z | 06 52 Z | No | | | |
| 2184 | -174.49 | 08 17 47 Z | 08 30 Z | No | | | |
| 2184 | -174.49 | 08 17 47 Z | 10 00 Z | 100.051 | 10 1003 | 802 | 447 |
| 2192 | -17.07 | 21 52 04 Z | 22 31 Z | No | | | |
| 2193 | -42.40 | 23 33 51 Z | 00 10 Z | No | | | |

Disturbance "Urinii" (Western Pacific) 0857Z (9/10/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0857Z | 44.5N | 176.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2197 | -143.19 | 06 20 59 Z | 06 37 Z | No | | | |
| 2198 | -149.01 | 08 02 46 Z | 08 15 Z | No | | | |
| 2206 | -11.60 | 21 37 03 Z | 22 11 Z | 220652 | 220855 | 802 | 463 |
| 2207 | -36.92 | 23 18 50 Z | 23 53 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON ALICE

(September 15 - September 20, 1975)

Meteorological History/Data

On 11 September, a tropical upper tropospheric trough extended westward across the western North Pacific into the South China Sea with several cyclonic cells apparent along the trough axis. On the morning of the 12th, a tropical disturbance was identified on satellite data to the south of the trough, near 12N, 148E. Outflow weakened over the disturbance as the trough moved to the northwest; this rendered upper-level divergence insufficient to induce a surface vortex and stimulate further development. The anticyclone drifted westward with little apparent change until the 15th, when it moved over a small vortex in the monsoon trough near 13N 131E. As this upper-level anticyclone became vertically aligned over the surface cyclone, the system underwent rapid tropical cyclone development.

This system became Tropical Storm Alice on the afternoon of the 16th and intensified to typhoon strength within 24 hours. On the 17th at 1430Z, aircraft reconnaissance data indicated a 32-mb drop in central pressure during the previous 21 hours and maximum flight level winds of 105 knots were recorded on this eye penetration. Reduced inflow resulting from the development of Typhoon Betty (1200 nm to the east) inhibited further development as Alice approached central Luzon. At 2000Z on the 17th, the typhoon made landfall near Casiguran, Luzon with maximum surface winds of 75 knots.

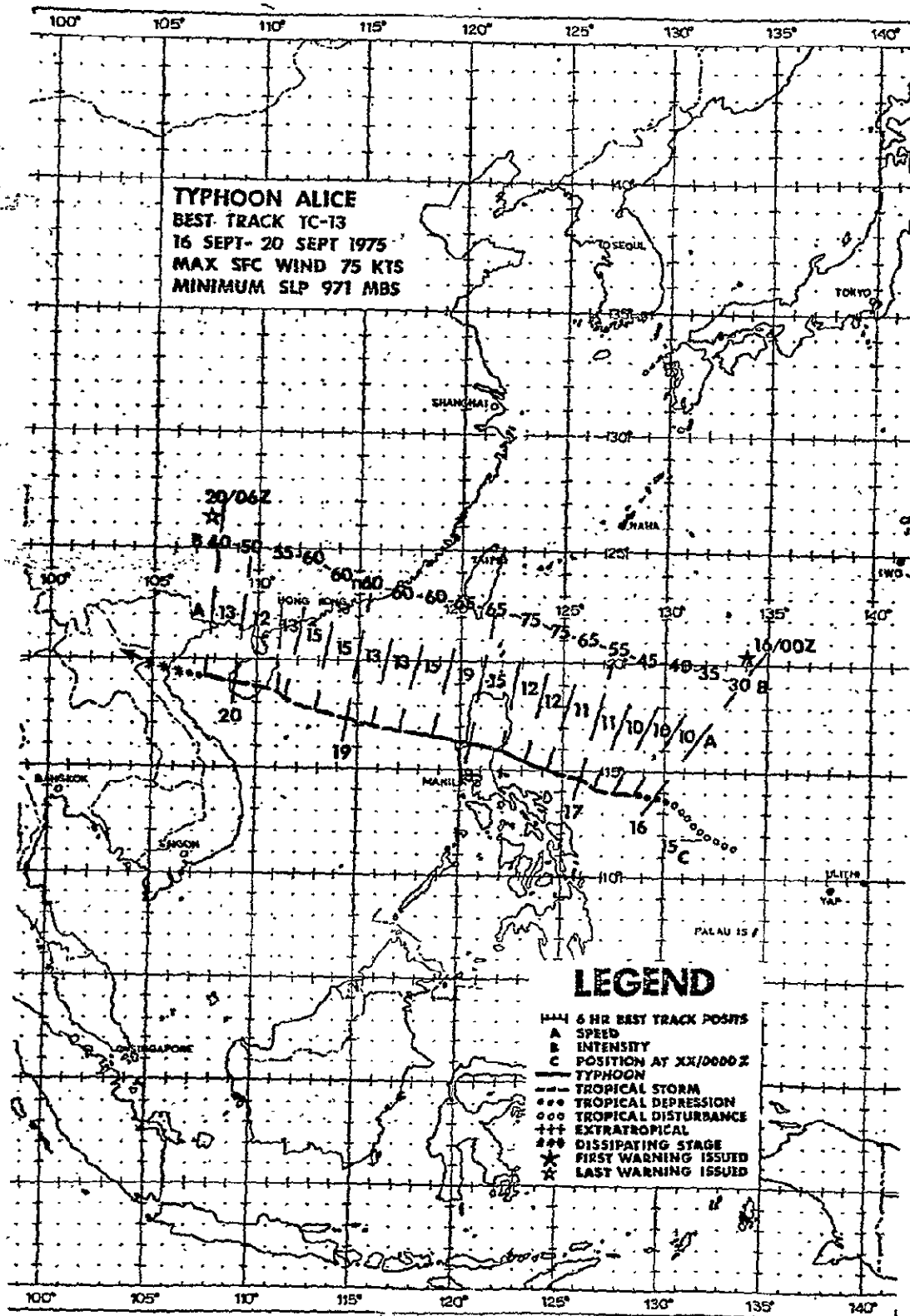
Alice passed Luzon near 16N, and entered the South China Sea at 0400Z on the 18th with surface winds of 65 knots. Wallace Air Station reported winds of 40 knots with gusts to 60 knots at 0129Z; a peak gust of 42 knots was recorded at Baguio at 0432A. No significant damage was reported during the Luzon crossing.

Alice continued to a west-northwest track across the South China Sea in response to moderate steering flow along the southern periphery of the 500 mb subtropical ridge. Maximum surface winds decreased to 60 knots at 1200Z on the 18th and Alice maintained that intensity until just prior to striking the Hainan coast at 1800Z on the 19th. Alice was still well-organized as she entered the Gulf of Tonkin with 50-knot winds, but weakened rapidly thereafter and dissipated upon moving inland over North Vietnam.

Damage Estimates

No significant damage was reported.

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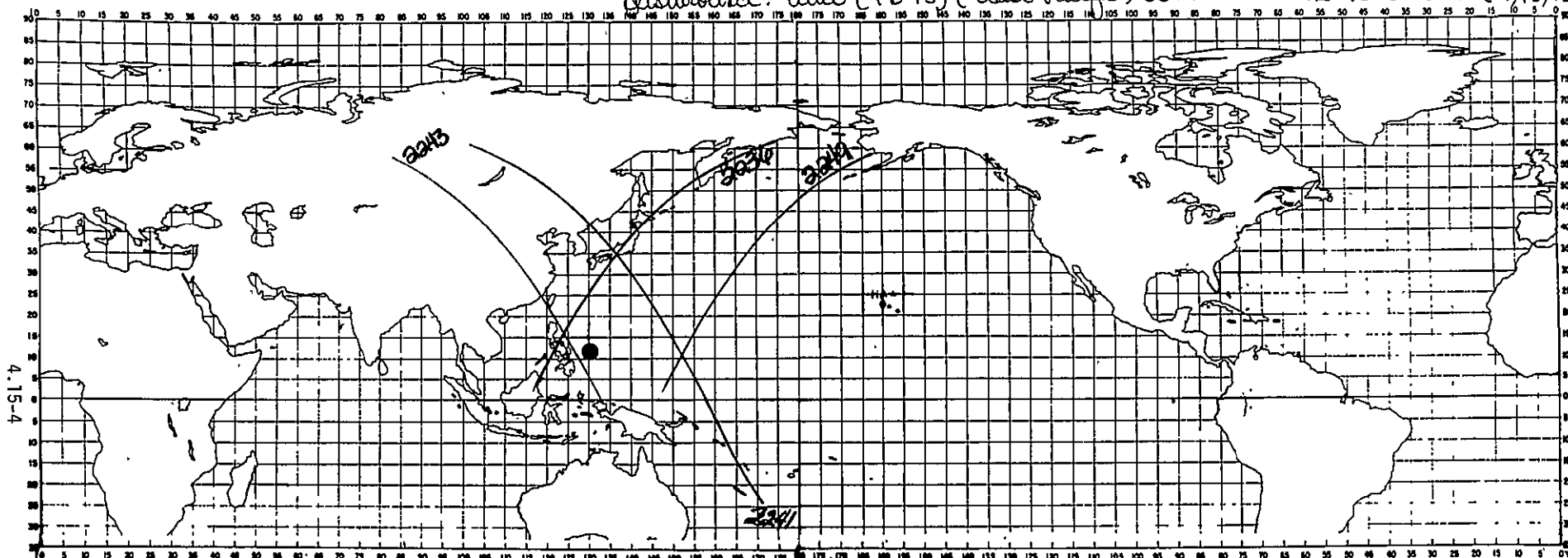
DISTURBANCE: "ALICE" TD-13; (WESTERN PACIFIC)

DATE: SEPT 15 - SEPT 20, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------|----------|-----------|------------------|----------------|-------------------|
| | | Latitude | Longitude | | | |
| 9/15 | 0051Z | 12.8N | 121.8E | | | |
| | 1132Z | 13.0 | 130.5 | | | |
| | 2351Z | 13.8 | 129.4 | | | |
| 9/16 | 1227Z | 14.5N | 127.0E | | | Tropical Storm |
| 9/17 | 0046Z | 14.9N | 124.1E | | 105 (1430Z) | Typhoon (1430Z) |
| | 1128Z | 15.2 | 122.5 | | 75 (2000Z) | |
| 9/18 | 0140Z | 16.0N | 120.2E | | 65 (0400Z) | Typhoon |
| | 1224Z | 17.1 | 116.2 | | 60 (1200Z) | |
| 9/19 | 0040Z | 17.6N | 114.8E* | | | |
| | 2222Z | 19.4 | 110.5* | | | |
| 9/20 | 1220Z | 20.0N | 105.0E* | | | No Classification |

* Over Land

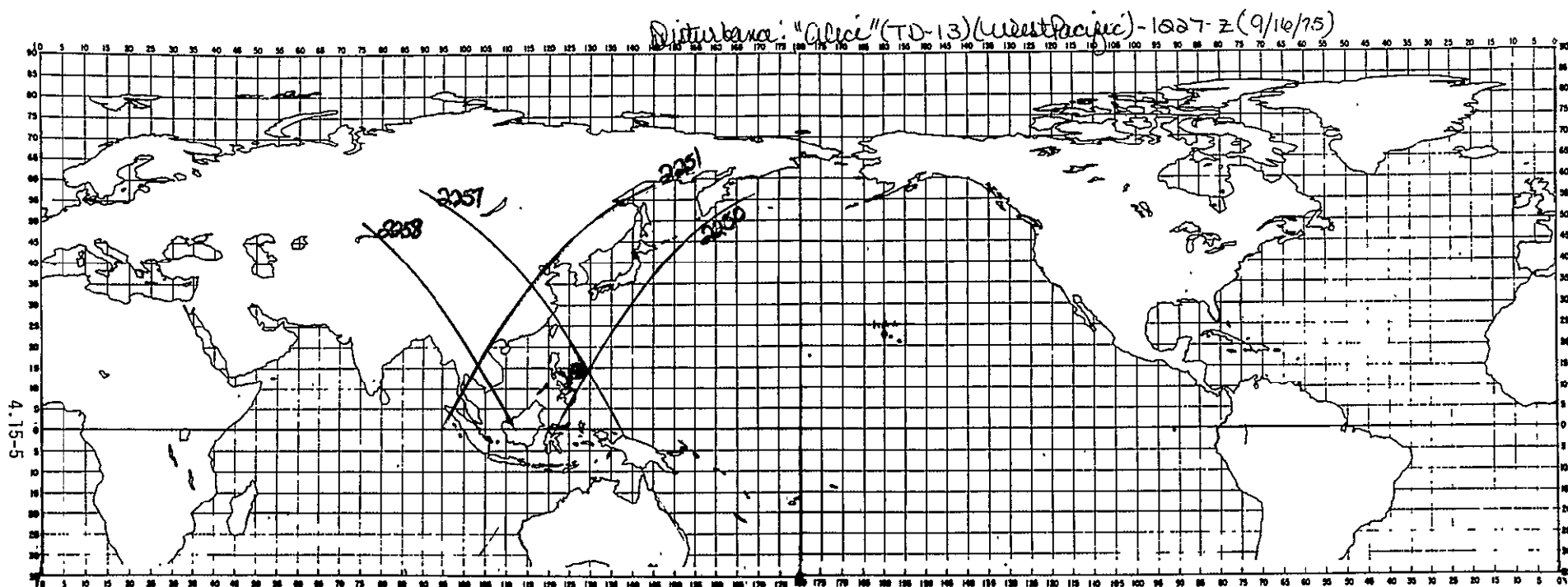
Disturbance: "Alice" (T0-13) (West Pacific) 0051Z to 1132Z to 2351Z (9/18/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0051Z | 12.8N | 131.8E |
| 1132Z | 13.0N | 130.5E |
| 2351Z | 13.8N | 129.4E |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2236 | -51.80 | 00 30 35Z | 01 17 Z | No | | | |
| 2241 | -177.91 | 08 59 31Z | 10 47 Z | 104035 | 105249 | 802 | 485 |
| 2243 | 131.44 | 12 23 05Z | 12 24 Z | No | | | |
| 2249 | -20.50 | 22 33 48 Z | 23 24 Z | 232023 | 232251 | 802 | 490 |
| | | | | | | | |
| | | | | | | | |

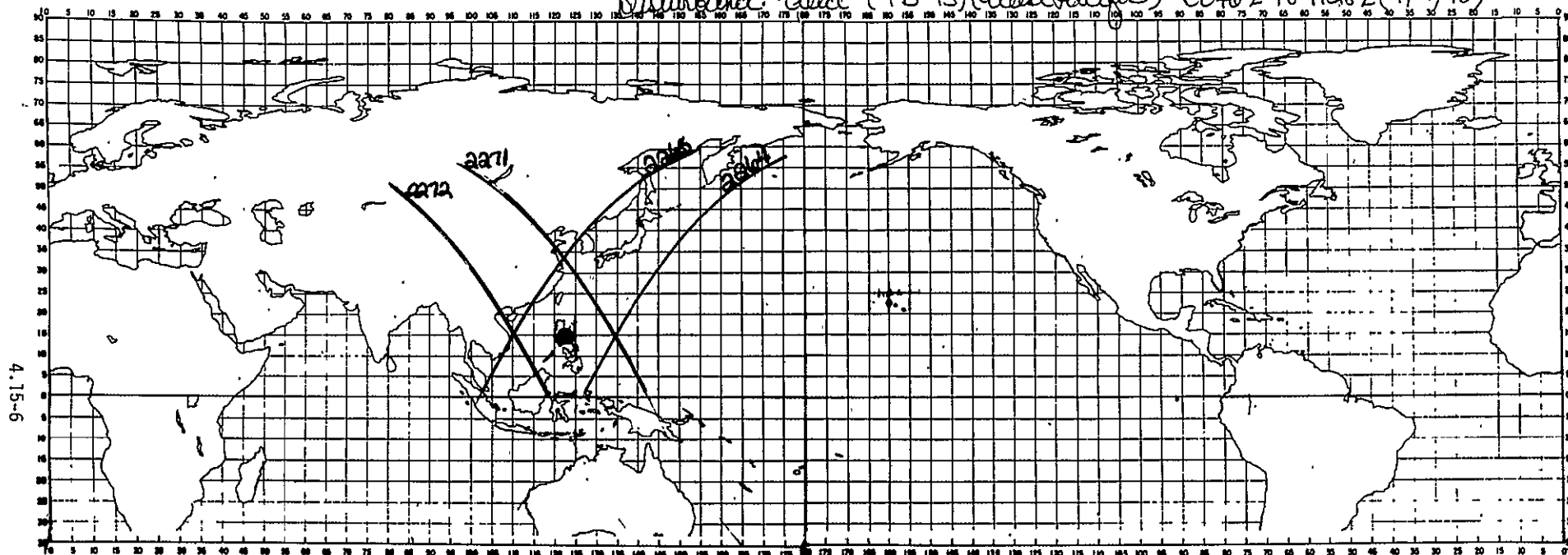


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1227Z | 14.5N | 127.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2250 | -45.83 | 00 15 35 Z | 01 03 Z | No | | | |
| 2251 | -71.15 | 01 57 22 Z | 02 40 Z | No | | | |
| 2257 | 136.91 | 12 08 04 Z | 12 13 Z | No | | | |
| 2258 | 111.59 | 13 49 51 Z | 13 52 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Alicia" (TD-13) (West Pacific) - 0040Z to 1128Z (9/17/75)

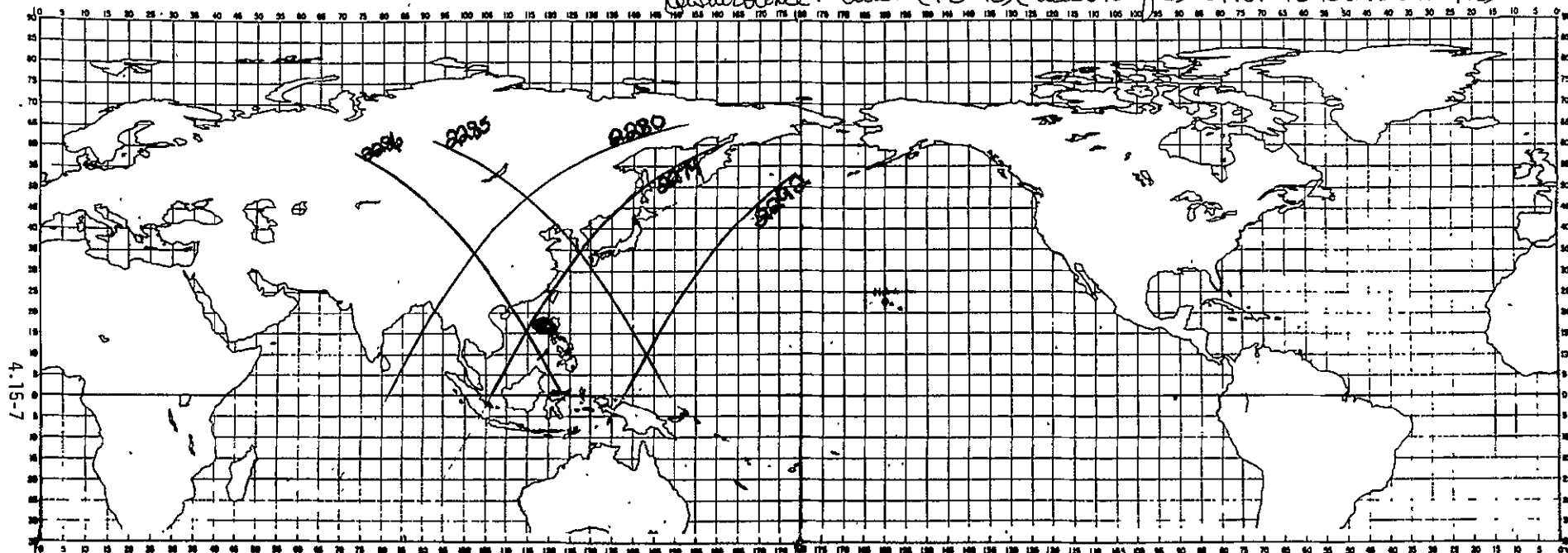


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0040Z | 14.9N | 124.1E |
| 1128Z | 15.2N | 122.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2264 | -40.35 | 00 00 34 Z | 00 49 Z | 004212 | 005251 | 803 | 503 |
| 2265 | -45.67 | 01 43 21 Z | 02 27 Z | Do | | | |
| 2271 | 142.39 | 11 53 04 Z | 11 59 Z | Do | | | |
| 2272 | 117.06 | 13 34 51 Z | 13 38 Z | Lo | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Alice" (TD-13) (West Pacific) - 0140Z to 1224Z (9/18/75)

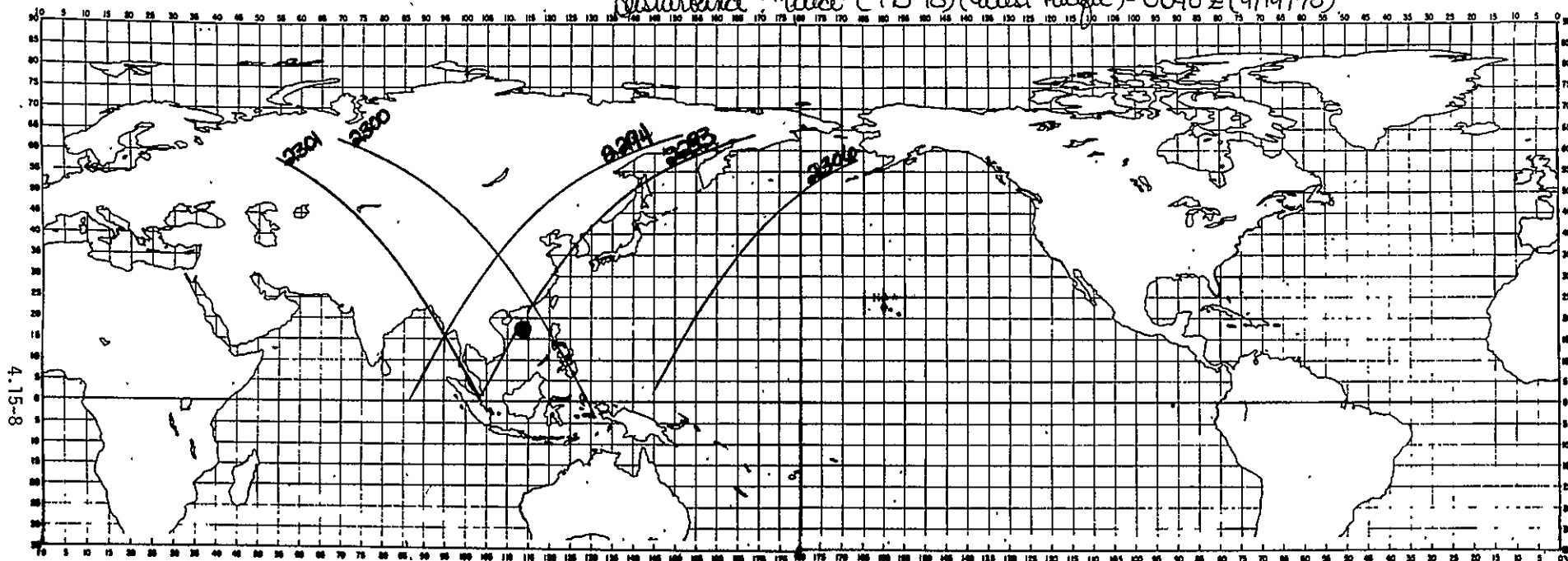


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0140Z | 16.0N | 120.2E |
| 1224Z | 17.1N | 116.2E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----------------|-----|------|--------|
| 2279 | -60.20 | 01 27 20 Z | 02 12 Z | N ₀ | | | |
| 2280 | -85.52 | 03 03 07 Z | 03 46 Z | N ₀ | | | |
| 2285 | 147.86 | 11 38 03 Z | 12 46 Z | N ₀ | | | |
| 2286 | 122.54 | 13 19 30 Z | 13 24 Z | N ₀ | | | |
| 2292 | -29.40 | 23 30 32 Z | 00 21 Z | N ₀ | | | |

Disturbance: "Alice" (TD-13) (West Pacific) - 0040Z (9/19/78)



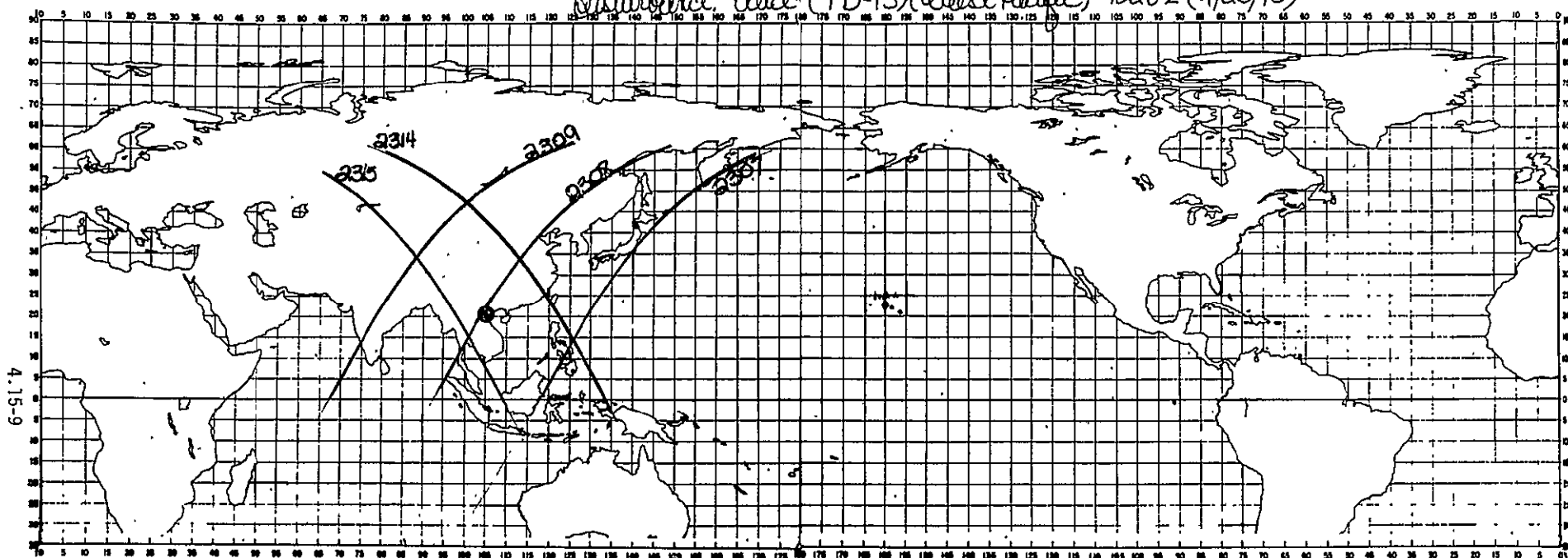
LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0040Z | 17.6N | 114.8E* |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2293 | -64.73 | 01 12 20 Z | 01 57 Z | No | | | |
| 2294 | -80.05 | 02 54 07 Z | 03 38 Z | No | | | |
| 2300 | 128.01 | 13 04 48 Z | 13 11 Z | No | | | |
| 2301 | 102.69 | 14 46 36 Z | 14 51 Z | No | | | |
| 2306 | -23.93 | 23 15 52 Z | 00 06 Z | No | | | |

*Over land

Disturbance "Alice" (TD-13) (West Pacific) - 1220 Z (9/20/15)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1220Z | 80.0N | 105.05* |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

*Overland

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2307 | -49.25 | 00 57 19 Z | 01 45 Z | No | | | |
| 2308 | -71.57 | 02 38 06 Z | 03 23 Z | No | | | |
| 2309 | -99.90 | 04 20 53 Z | 05 02 Z | No | | | |
| 2314 | 133.49 | 12 48 48 Z | 12 58 Z | No | | | |
| 2315 | 108.16 | 14 31 36 Z | 14 37 Z | No | | | |

TYPHOON BETTY

(September 16 - September 23, 1976)

Meteorological History/Data

As Typhoon Alice approached the Philippine Islands on the 16th of September, another tropical circulation was detected in the monsoonal trough some 200 nm south of Guam. Moving northward at nearly 20 knots, this disturbance passed within 50 nm of Guam early on the 17th. By the afternoon of the 17th the circulation, now TD-14, turned sharply to the west as it approached the southern periphery of the subtropical ridge. TD-14 attained tropical storm intensity on the morning of the 18th while moving westward at 12 knots.

The subtropical ridge to the west of Tropical Storm Betty was weakened by a series of middle tropospheric short wave troughs. This produced weak steering currents for the storm and the westward movement slowed to 5 knots. By the 19th, the subtropical ridge, influenced by Typhoon Alice, intensified and receded to the north. In response, Betty began moving northwestward and accelerated to 13 knots.

On the 19th, as a weak upper tropospheric trough to the west deepened, and created a highly efficient outflow channel to the mid-latitude westerlies, Betty began to intensify. By the 20th, Alice had weakened, allowing the subtropical ridge northwest of Betty to build southward. Betty again responded by moving westward. At 0230Z on the 22nd, Typhoon Betty attained a maximum intensity of 95 knots as reconnaissance aircraft recorded a minimum sea-level pressure of 944 mb. The outflow channel to the north (evident on the 19th) was severed by the 21st, but by then Betty had established an outflow channel to the upper tropospheric monsoon easterlies to the south; thus, Betty continued to intensify until the 22nd.

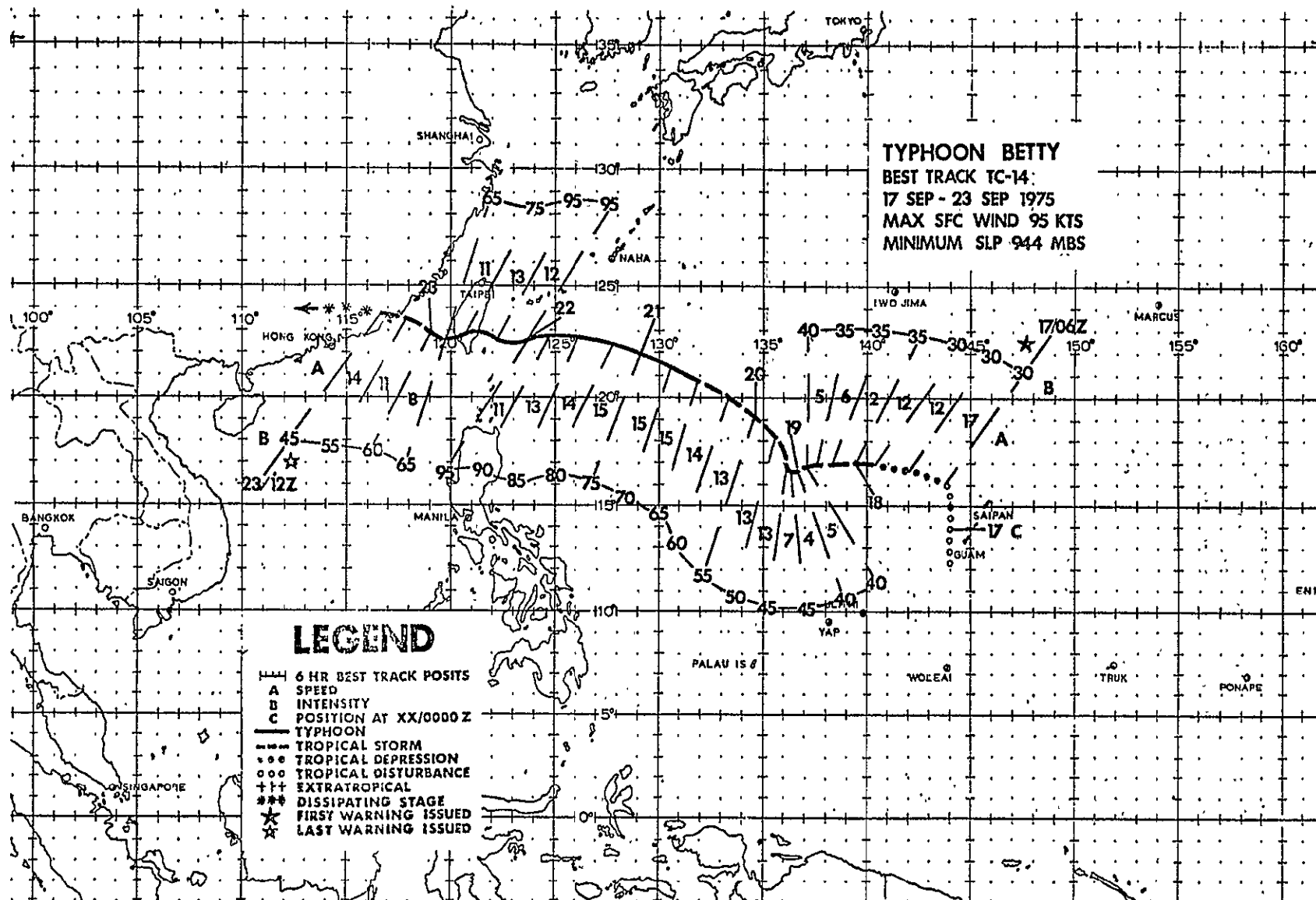
At 1200Z on the 21st, a ship located 140 nm northeast of the storm estimated winds at 55 knots and seas of 27 feet. The 22 September 0000Z rawinsonde at Ishagakishima (110 nm NNE of Betty) showed 70-knot winds from the 3,000 foot through the 18,000 foot level.

The typhoon, when some 120 nm from Taiwan, was placed under constant surveillance by the radar at Hualien, Taiwan. Upon reaching Taiwan, Betty began to weaken. The typhoon's track became west-northwestward as the storm interacted with a lee-side trough created by the high mountain ranges on Taiwan. Containing winds near 80 knots, Betty crossed into southern Taiwan about 15 nm north of Taitung.

After crossing the mountains of southern Taiwan, the storm's track became west-southwestward. Weakened by the rugged terrain, Betty entered the Taiwan Strait as a minimal typhoon. It continued to weaken and crossed the Chinese coast on the evening of the 23rd with 50-knot winds. By the 24th, Betty had degenerated into a low pressure area some 100 nm north of Hong Kong.

Damage Estimates/Loss of Life

Unofficial reports indicated 12 dead, scores injured, and hundreds homeless in the typhoon's wake. Nearly a thousand tourists were stranded as mud slides covered highways. In addition, more than 200 homes were leveled and hundreds of others damaged.

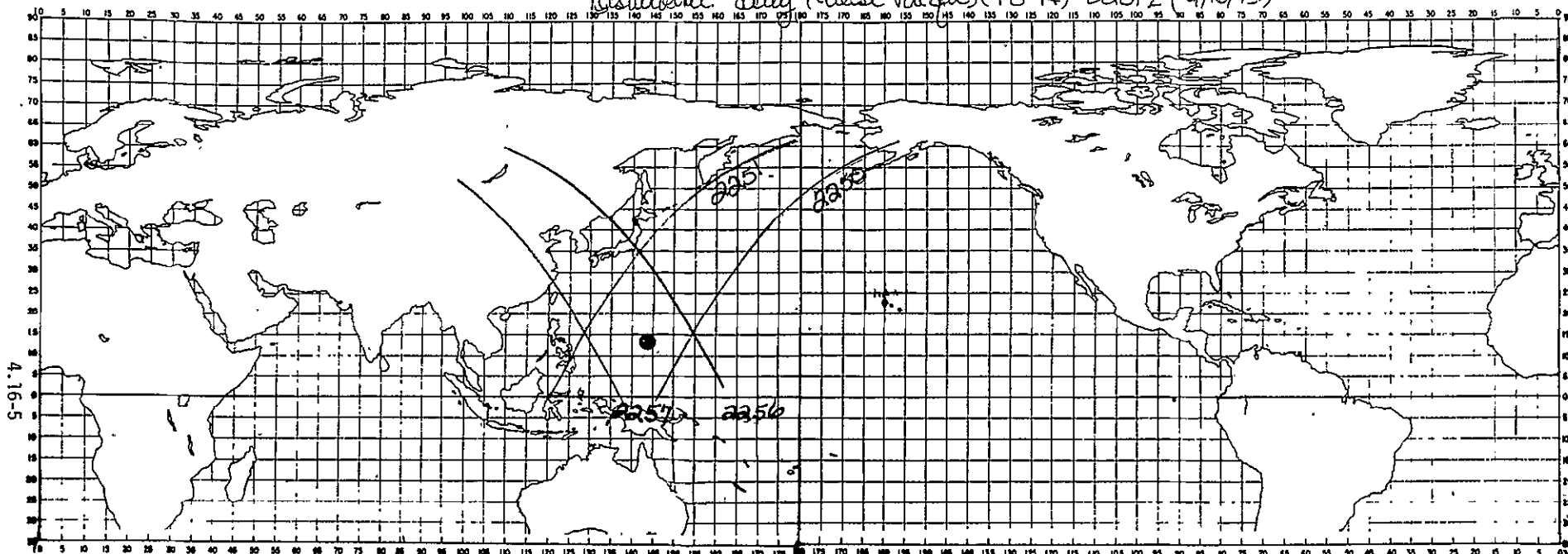


DISTURBANCE: "BETTY" TD-14; (WESTERN PACIFIC)

DATE: SEPT 16 - SEPT 23, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------------------|-----------------------|--------------------------|------------------|---------------|----------------|
| | | Latitude | Longitude | | | |
| 9/16 | 2251Z | 13.8N | 144.3E | | | |
| 9/17 | 1128Z 2345Z | 16.0N 16.7 | 141.0E 139.2 | | | |
| 9/18 | 1029Z | 16.8N | 137.0E | | | Tropical Storm |
| 9/19 | 0040Z 1123Z 2333Z | 17.0N 17.2 18.9 | 138.3E 137.0 134.8 | | | |
| 9/20 | 1220Z | 21.5N | 131.8E | | | |
| 9/21 | 0033Z 1121Z | 21.4N 23.2 | 129.0E 125.9 | | | |
| 9/22 | 0127Z 1215Z | 22.2N 22.5 | 123.5E 120.0 | 944 | 95 (0230Z) | Typhoon |
| 9/23 | 0028Z | 22.8N (Over Land) | 119.0E | | | |

Disturbance "Betty" (West Pacific) (TD-14) - 2251 Z (9/10/75)

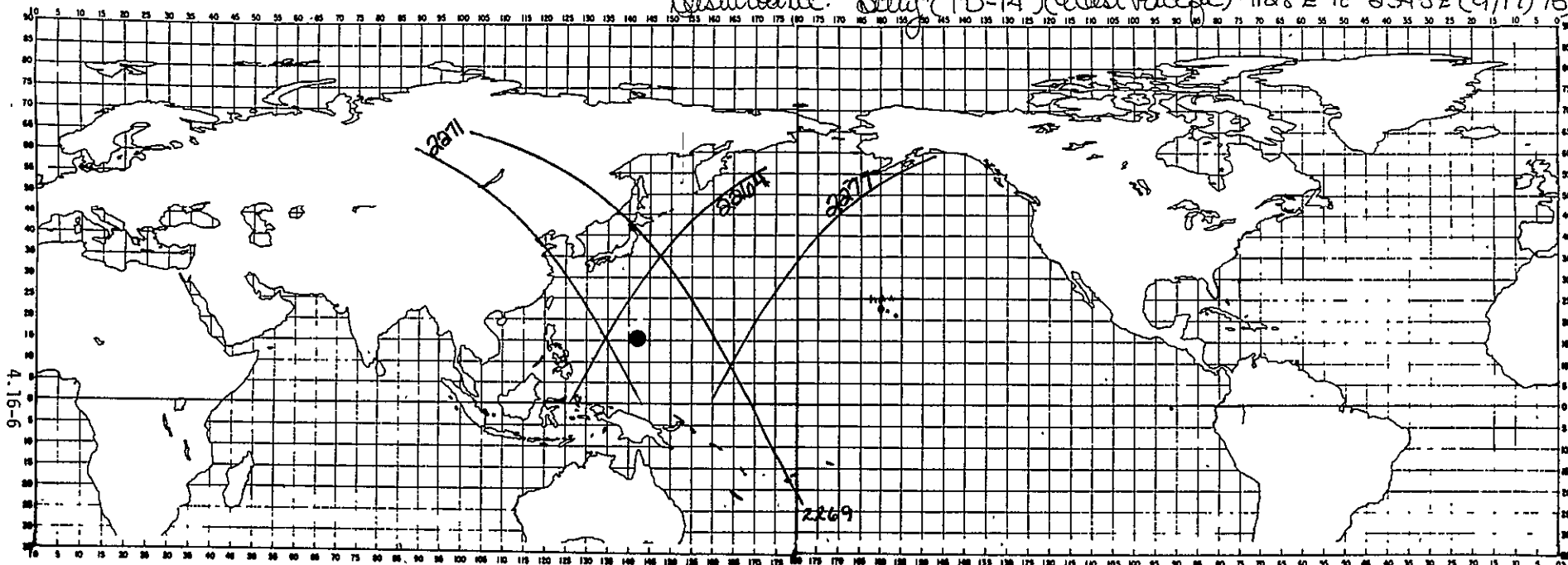


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2251Z | 13.8N | 144.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2250 | -45.83 | 00 15 35 Z | 01 04 Z | No | | | |
| 2251 | -71.5 | 01 57 22 Z | 02 42 Z | No | | | |
| 2256 | 1162.24 | 10 26 17 Z | 10 32 Z | No | | | |
| 2257 | 136.91 | 12 08 04 Z | 12 11 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Betty" (TD-14) (West Pacific) - 1128Z to 2345Z (9/17/75)

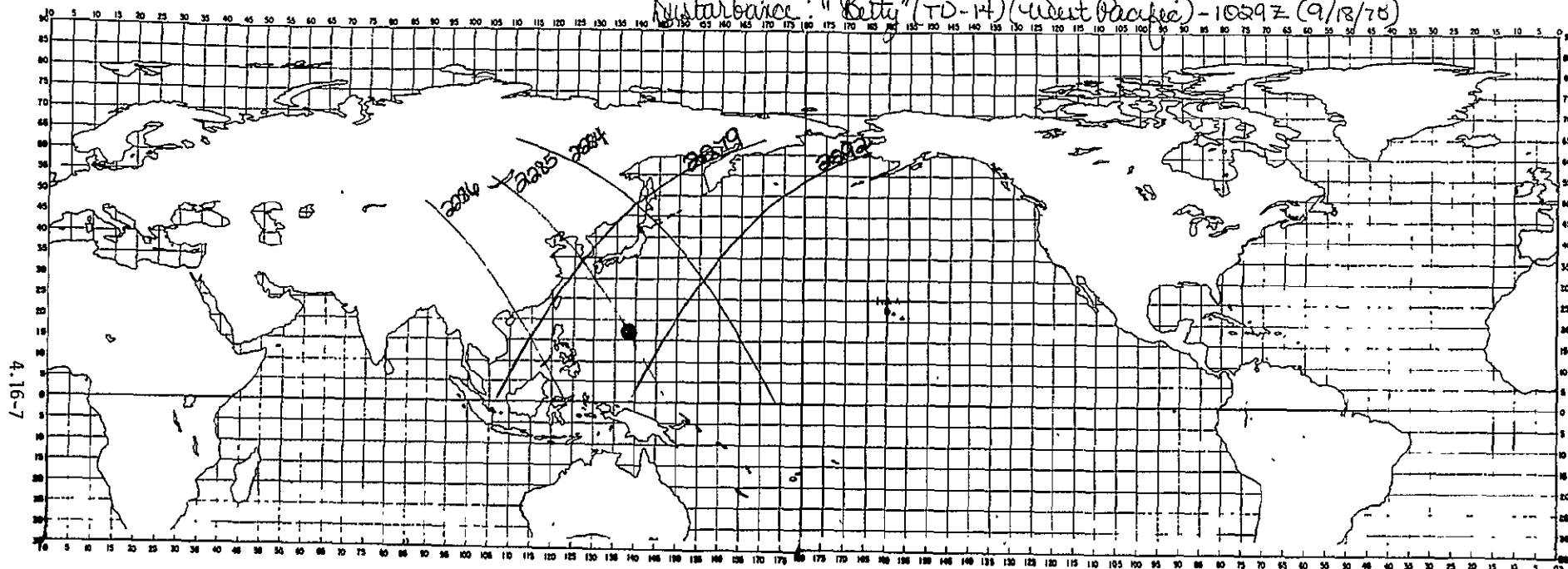


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1128Z | 16.0N | 141.0E |
| 2345Z | 16.7N | 139.2E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2264 | -40.35 | 00 00 34 Z | 00 46 Z | 004212 | 005251 | 802 | 503 |
| 2269 | -166.96 | 08 29 29 Z | 10 19 Z | 095338 | 102403 | 802 | 506 |
| 2271 | 142.39 | 11 53 04 Z | 11 57 Z | No | | | |
| 2277 | -9.55 | 22 03 46 Z | 22 53 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Betty" (TD-14) (West Pacific) - 1029Z (9/13/78)



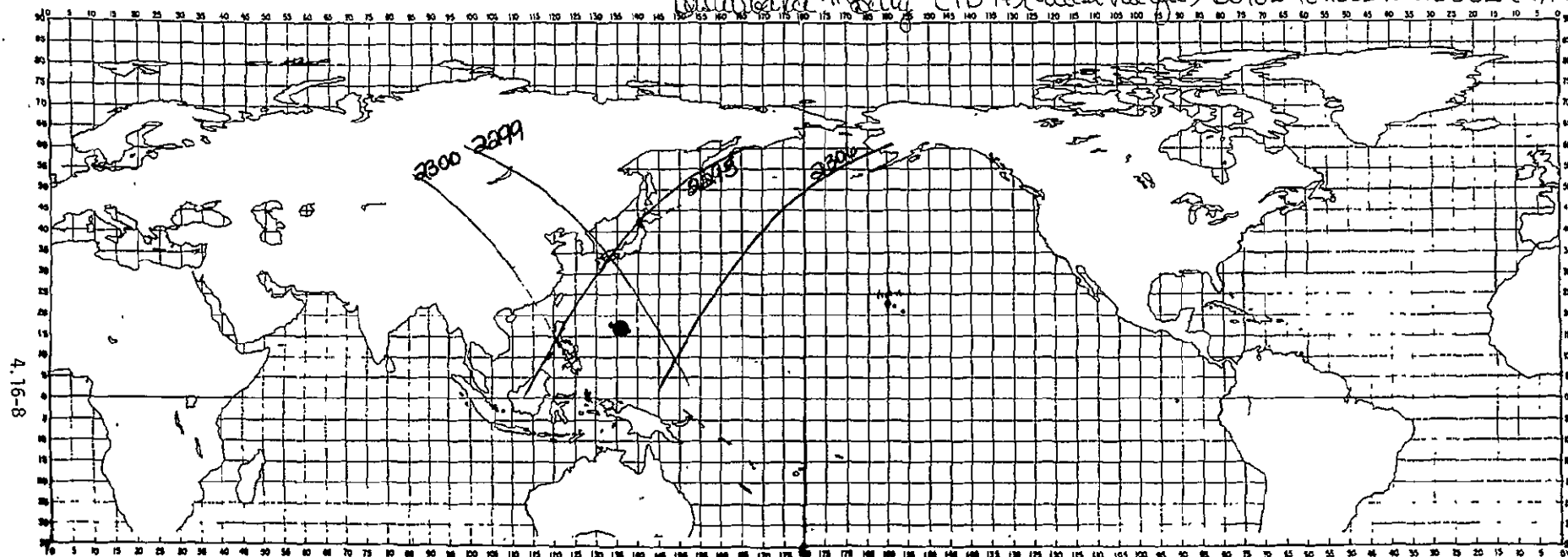
4.16-7

LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1029Z | 16.8N | 137.0E |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2279 | -60.20 | 01 27 20 Z | 02 10 Z | No | | | |
| 2284 | 173.18 | 09 56 16 Z | 10 04 Z | No | | | |
| 2285 | 147.86 | 11 38 03 Z | 11 41 Z | No | | | |
| 2286 | 122.54 | 13 19 30 Z | 13 24 Z | No | | | |
| 2292 | -29.40 | 23 30 32 Z | 00 18 Z | No | | | |
| | | | | | | | |

Outlook: "Betty" (TD-14) (West Pacific) - 0040Z to 1133Z to 2333Z (9/19/75)

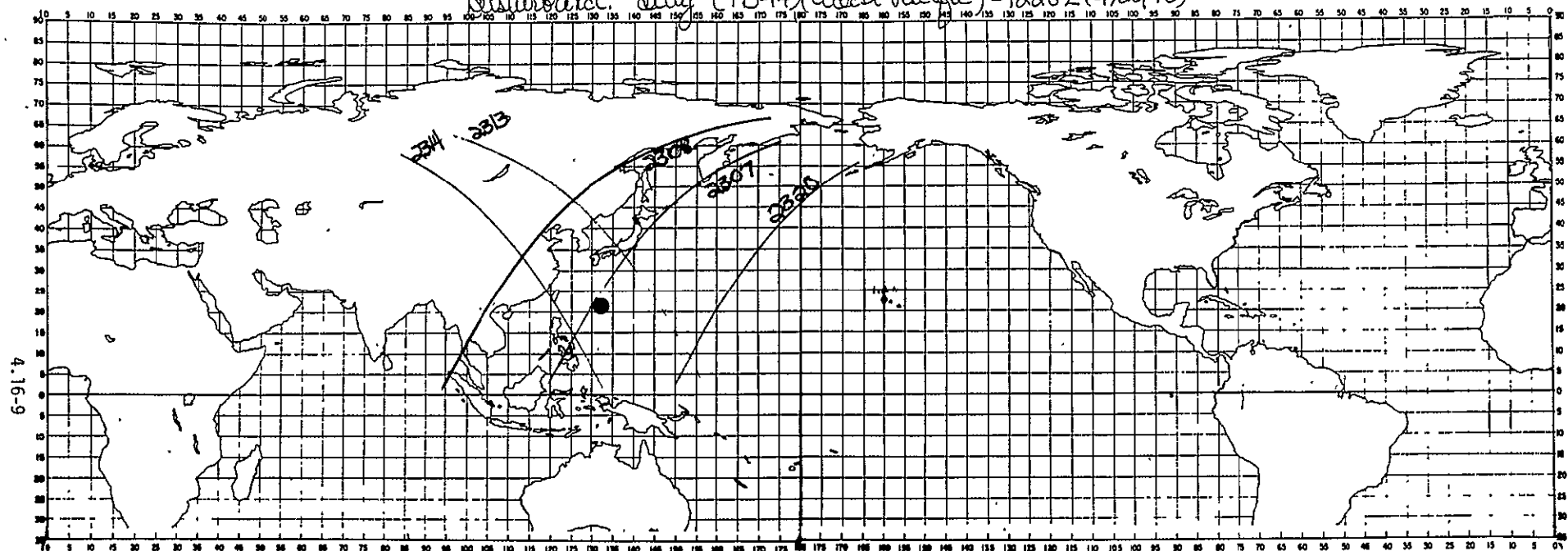


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0040Z | 17.0N | 138.2E |
| 1133Z | 17.2N | 137.0E |
| 2333Z | 18.9N | 134.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 0043 | -54.93 | 01 12 20 Z | 01 56 Z | No | | | |
| 2309 | 153.34 | 11 23 02 Z | 11 29 Z | No | | | |
| 2300 | 128.01 | 13 04 42 Z | 13 09 Z | No | | | |
| 2306 | -23.93 | 23 15 32 Z | 00 04 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Betty" (TD-14) (West Pacific) - 1200Z (9/00/70)



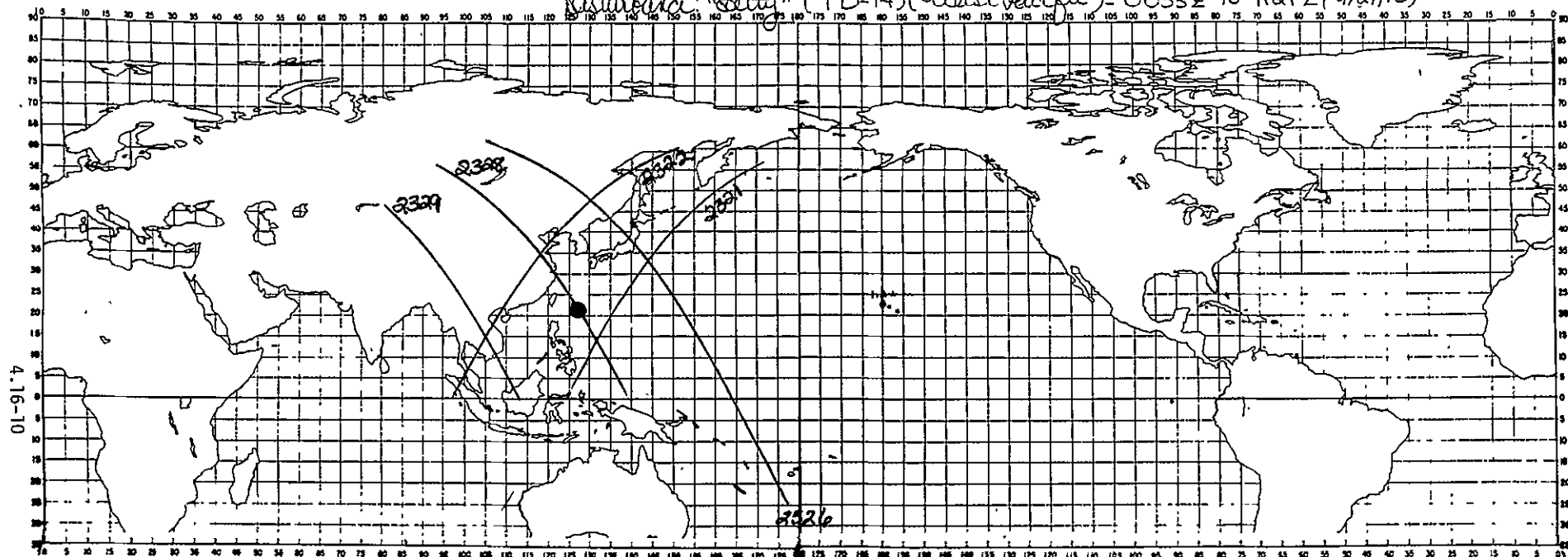
4.16-9

LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1200Z | 21.5N | 131.8E |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2307 | -49.25 | 00 57 19 Z | 01 41 Z | No | | | |
| 2308 | -74.57 | 02 39 05 Z | 03 20 Z | No | | | |
| 2313 | 158.81 | 11 08 01 Z | 11 17 Z | No | | | |
| 2314 | 133.49 | 12 49 48 Z | 12 55 Z | No | | | |
| 2320 | -18.45 | 23 00 31 Z | 23 50 Z | 234745 | 235455 | 802 | 551 |

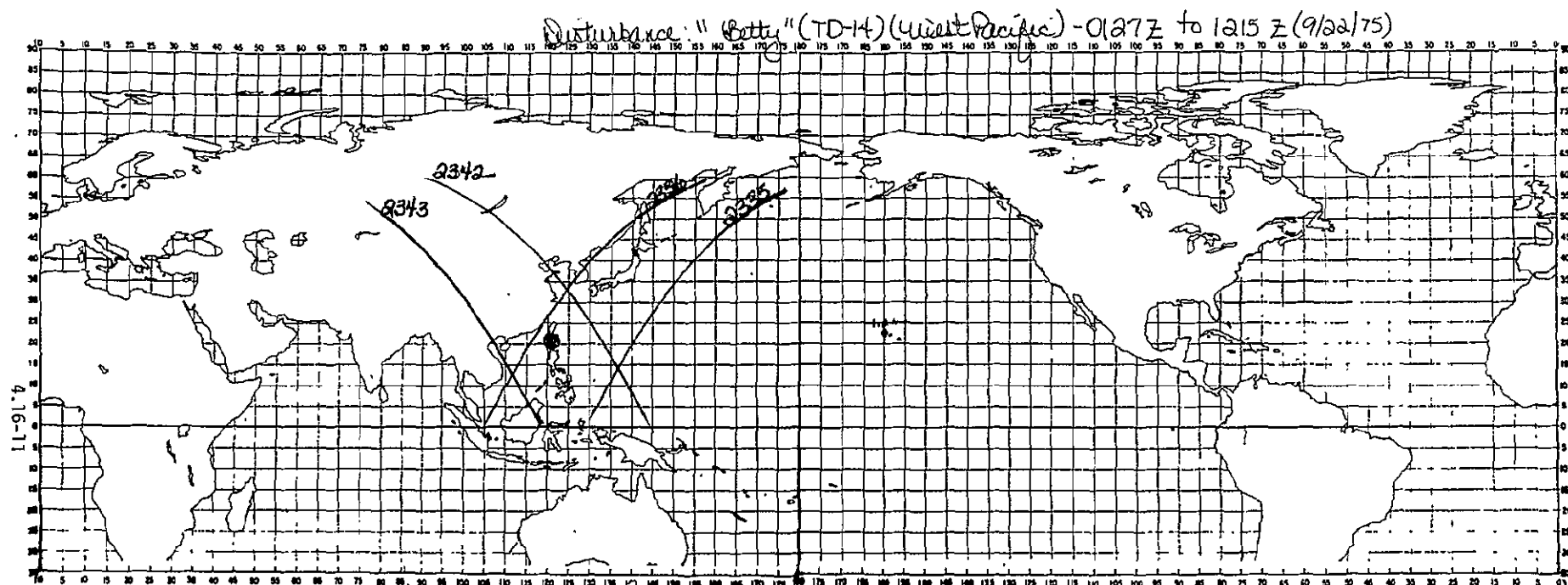
Disturbance "Betty" (TD-14) (West Pacific) - 0033Z to 1121Z (9/21/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0033Z | 21.4N | 129.0E |
| 1121Z | 23.2N | 125.9E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|---------|--------|------|--------|
| 2321 | -43.78 | 00 42 18 Z | 01 28 Z | No | | | |
| 2322 | -69.10 | 02 24 05 Z | 03 06 Z | No | | | |
| 2326 | -170.39 | 09 11 13 Z | 11 03 Z | 1084/37 | 105129 | 802 | 557 |
| 2328 | 138.96 | 12 34 45 Z | 12 42 Z | No | | | |
| 2329 | 113.64 | 14 10 35 Z | 14 14 Z | No | | | |
| | | | | | | | |

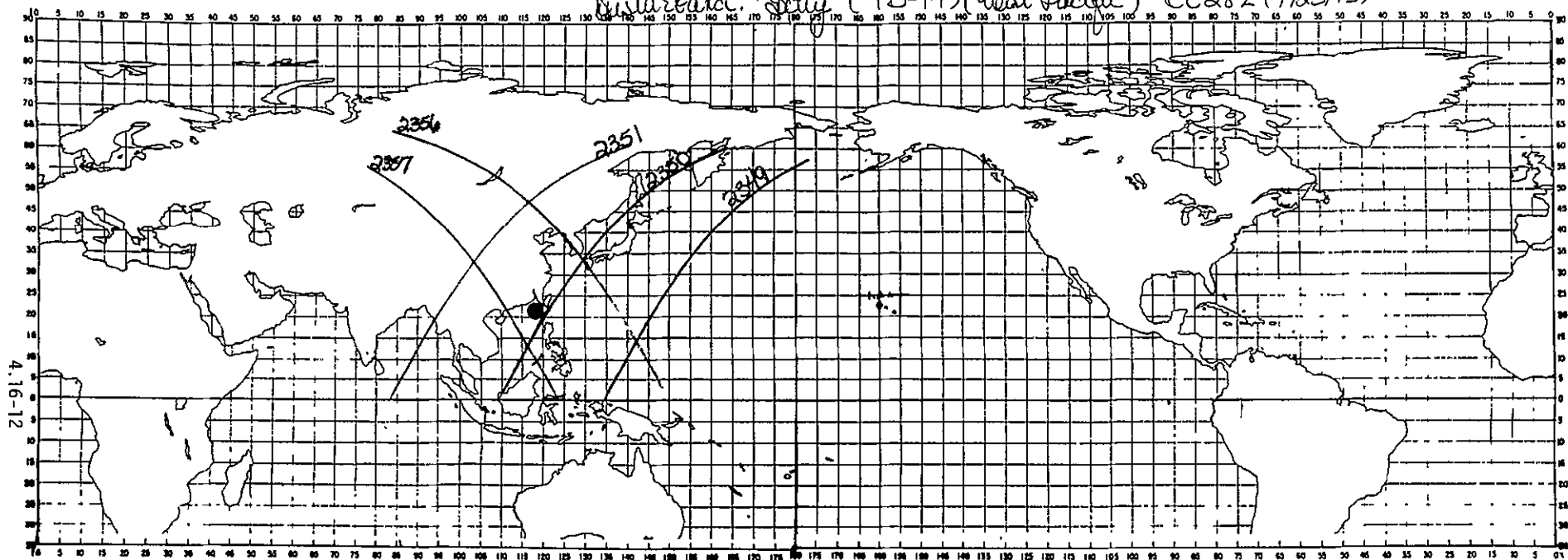


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0127Z | 22.2N | 123.5E |
| 1215Z | 22.5N | 120.0E |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2335 | -38.30 | 00 27 12 Z | 01 13 Z | No | | | |
| 2336 | -63.62 | 02 09 04 Z | 02 53 Z | No | | | |
| 2342 | 144.43 | 12 10 47 Z | 12 19 Z | No | | | |
| 2343 | 119.11 | 14 01 34 Z | 14 07 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Getty" (TD-14) (West Pacific) - CC28Z (9/23/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0028Z | 22.8N | 119.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2349 | -32.83 | 00 12 17 Z | 00 59 Z | No | | | |
| 2350 | -58.15 | 01 54 04 Z | 02 39 Z | No | | | |
| 2351 | -83.48 | 03 35 51 Z | 04 18 Z | No | | | |
| 2356 | 149.91 | 12 04 46 Z | 12 14 Z | No | | | |
| 2357 | 184.59 | 13 46 33 Z | 13 53 Z | No | | | |
| | | | | | | | |

TYPHOON CORA

(October 1 - October 6, 1975)

Meteorological History/Data

Weak troughing in the low level easterlies spawned a disturbance near 10N, 142E on the morning of 29 September, as indicated by satellite and synoptic data. This disturbance drifted west-northwest for the next several days; on 1 October, aircraft reconnaissance reported surface winds of 30 knots.

For the next 24 hours, the 700 mb center was displaced as much as 24 nm to the northwest of the large and diffuse surface center. This center had a diameter as large as 80 nm with weak temperature and pressure gradients, and correspondingly light winds. From initial detection until the evening of the 3rd, development of a good outflow channel to the west and northwest was restricted by an upper tropospheric trough to the west. Despite this lack of outflow, the storm continued to develop. Cora was upgraded to typhoon strength on the 3rd when aircraft reconnaissance reported 70-knot surface winds and a closed wall cloud. The system continued to lack good vertical structure through the evening of the 3rd when the 700 mb center was still displaced east of the surface center.

For the first 48 hours, Cora was situated between two large high pressure cells and moved toward the northwest at 13 knots. On the 3rd, the high pressure cell north of Taiwan began to weaken rapidly and collapsed. Strong ridging was now building to the east of Cora. At this time, Cora began to slow down prior to a gradual recurvature near 25N.

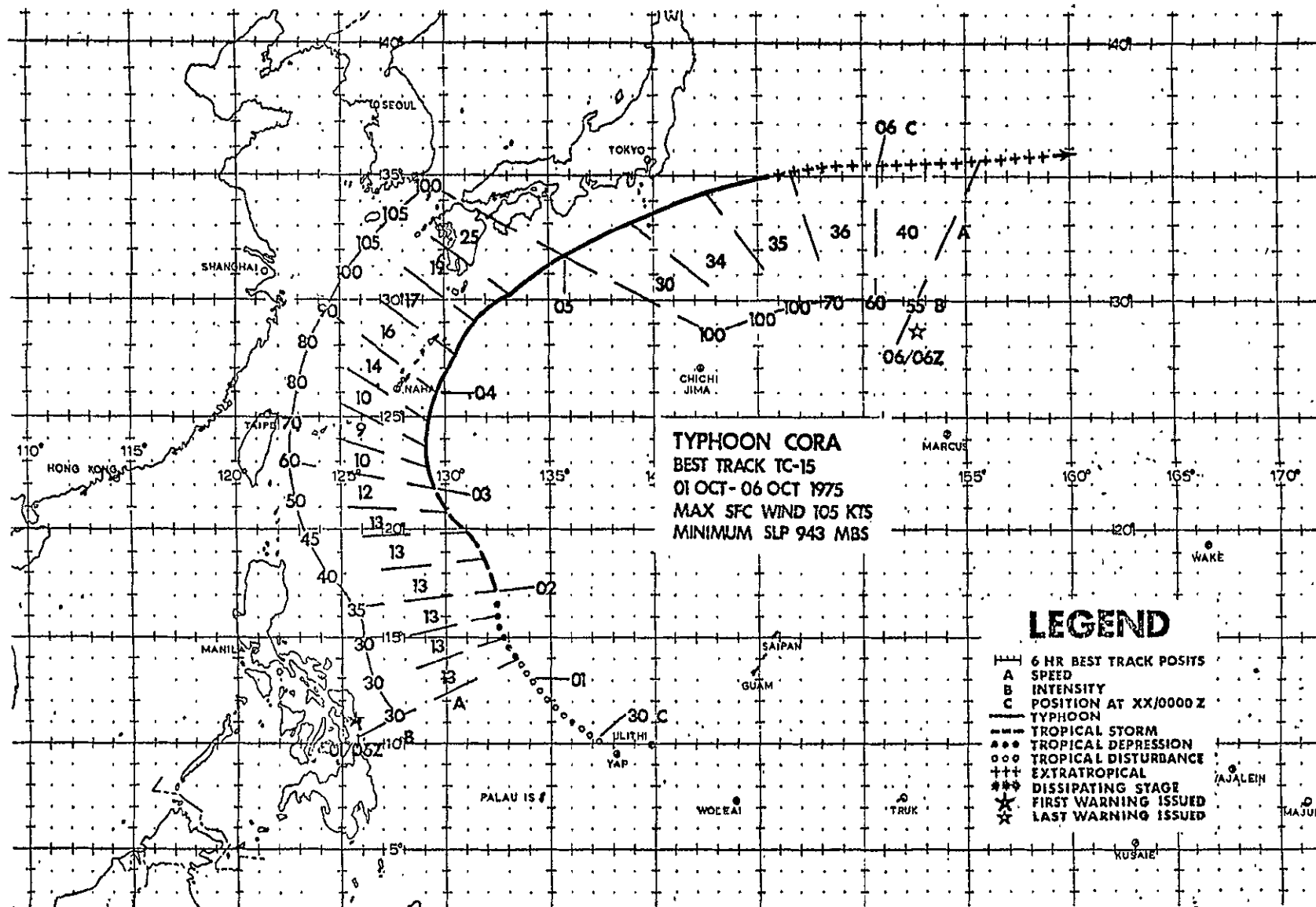
As Cora passed 100 nm to the east of Okinawa on the morning of the 4th, Kadena AB recorded a peak gust of 31 knots. The system now began a gradual acceleration as it entered an area of strong westerlies to the northeast of the high pressure cell. That evening Cora attained a minimum central pressure of 943 mb and maximum sustained surface winds of 105 knots. Both satellite and synoptic data indicated excellent outflow in all quadrants except the northwest where a minor trough was still restricting the outflow.

By the morning of the 5th, satellite and synoptic data indicated that the primary upper-level outflow was not confined to the north-northeast. Although Cora was in an area of strong vertical shear, typhoon strength winds were still maintained for the next 24 hours. Moving to the northeast at 30 knots, the typhoon continued to come into increasingly strong westerly steering flow. Cora passed 120 nm south-southeast of Tokyo on the evening of the 5th.

Satellite data on the 6th indicated that there was very little upper-level outflow, but an apparent low-level circulation was still visible. The remains of Cora were now moving to the east at 40 knots as an extratropical system with surface winds of 55 knots.

Damage Estimates

Unknown.



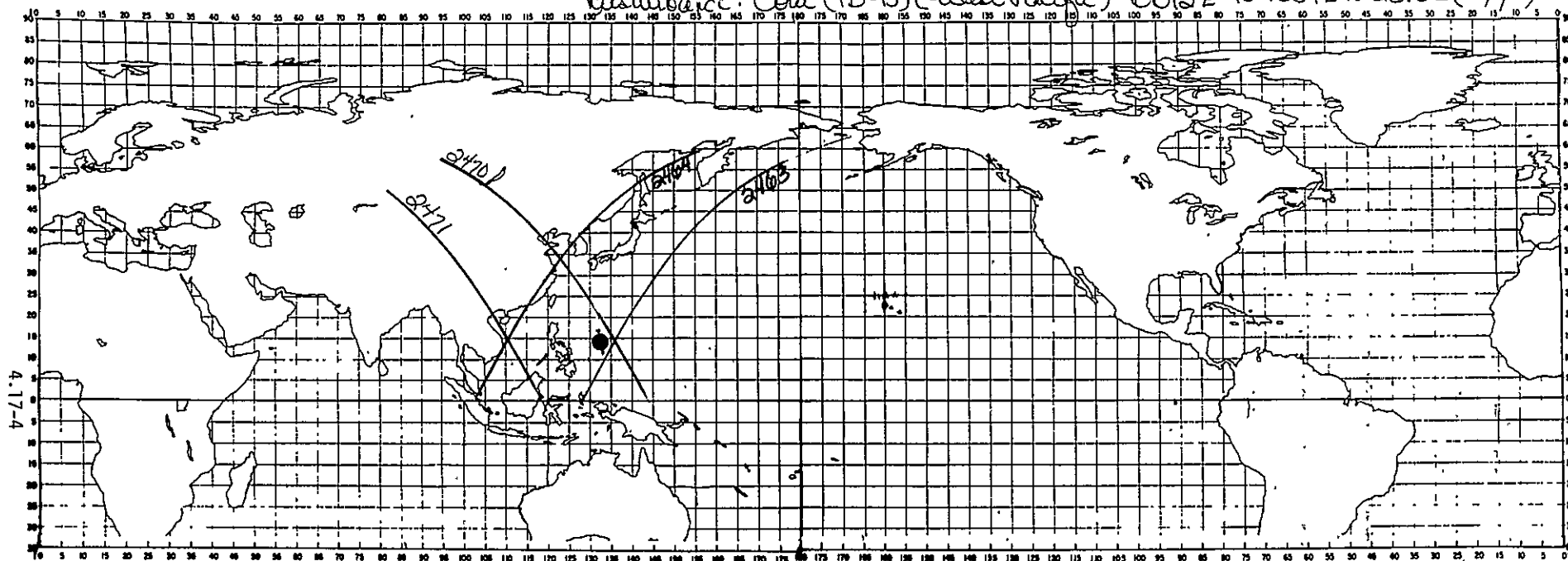
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DISTURBANCE: "CORA" TD-15: (WESTERN PACIFIC)

DATE: OCTOBER 1 - OCTOBER 6, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|-------------------------|-----------------------|--------------------------|------------------|---------------|---------------|
| | | Latitude | Longitude | | | |
| 10/1 | 0012Z 1054Z 2310Z | 12.5N 15.0 17.0 | 133.5E 133.5 132.8 | | | |
| 10/2 | 1150Z | 19.7N | 130.8E | | | |
| 10/3 | 0004Z 1051Z | 21.5N 23.9 | 129.0E 128.8 | | | Typhoon |
| 10/4 | 0058Z 1148Z 2356Z | 26.3N 29.2 31.7 | ? E 131.2 135.8 | 943 | 105 | Typhoon |
| 10/5 | 1249Z 2255Z | 34.0N 35.5 | 142.0E 151.0 | | | Extratropical |
| 10/6 | 0951Z | 37.5N | 157.0E | | 55 | Extratropical |

Disturbance: "Cora" (TD-15) (West Pacific) - 0012Z to 1054Z to 2310Z (10/1/75)

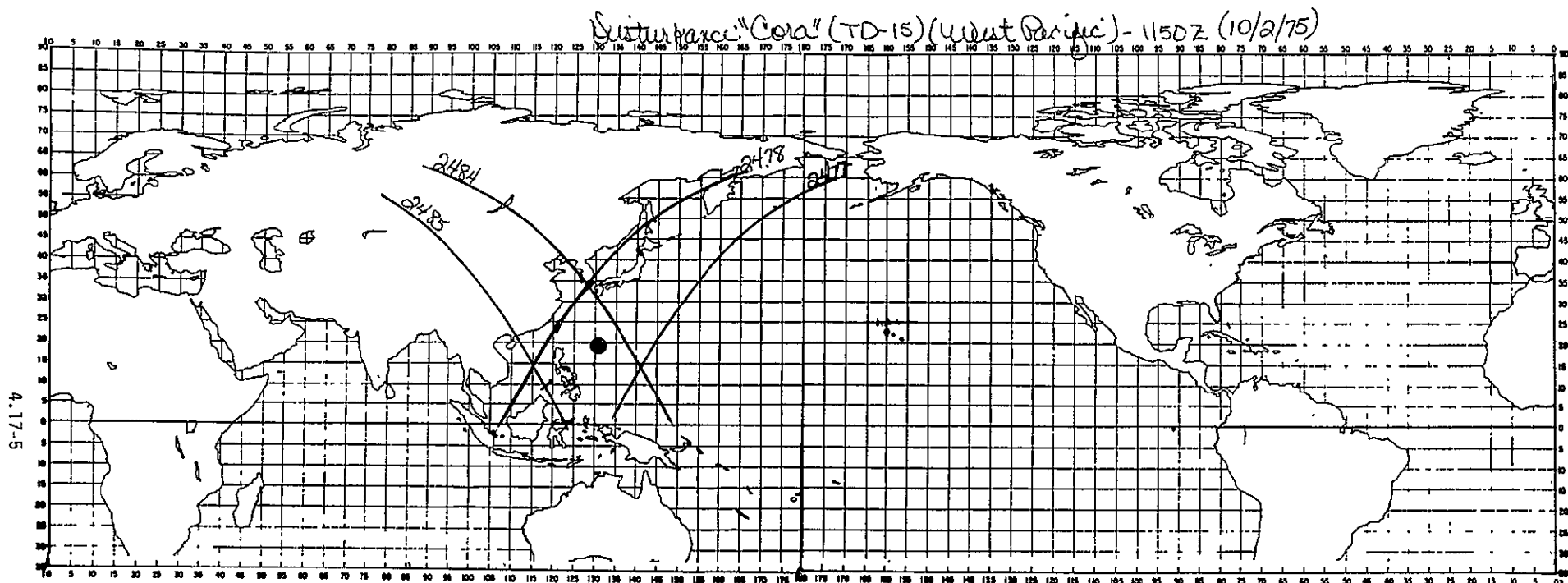


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0012Z | 12.5N | 133.5E |
| 1054Z | 15.0N | 133.5E |
| 2310Z | 17.0N | 132.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2463 | -39.68 | 01 35 44 Z | 02 33 Z | No | | | |
| 2464 | -69.01 | 03 17 32 Z | 04 02 Z | No | | | |
| 2470 | 43.06 | 13 28 14 Z | 13 33 Z | No | | | |
| 2471 | 117.73 | 15 10 01 Z | 15 12 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

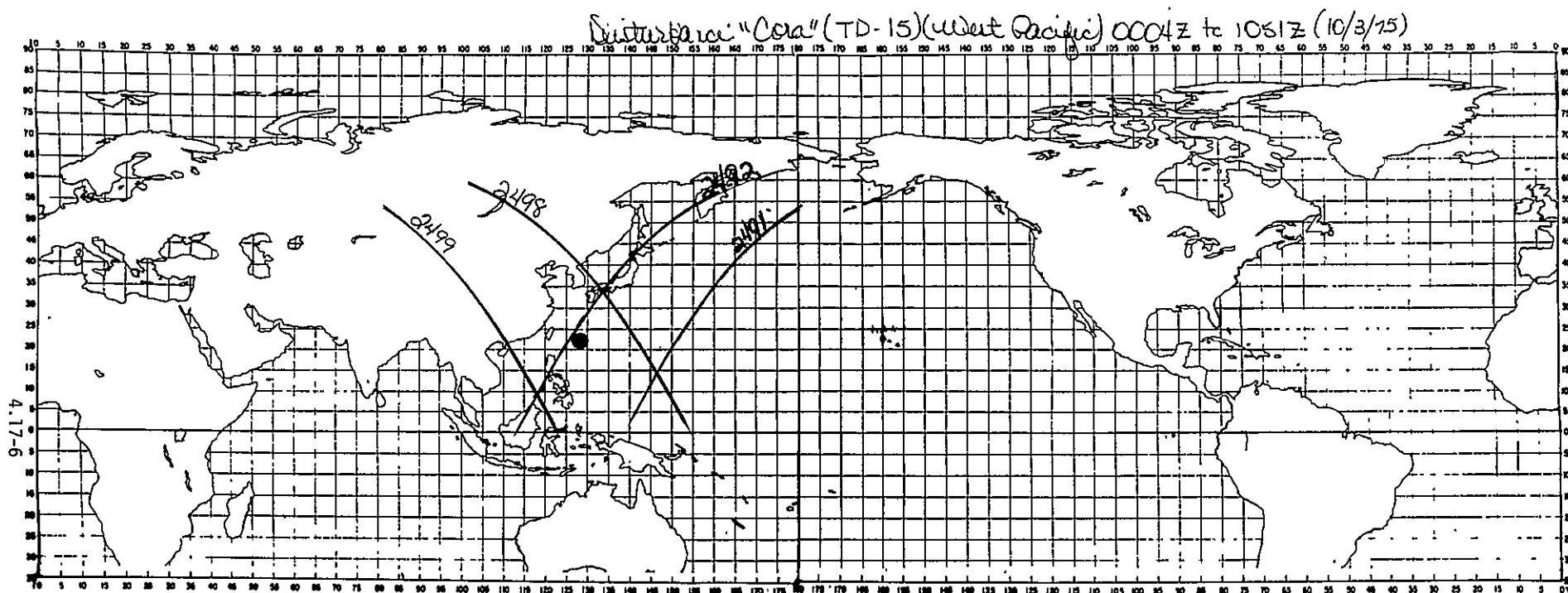
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LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1150Z | 17.7N | 130.8E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2477 | -34.21 | 01 20 44 Z | 02 07 Z | No | | | |
| 2478 | -59.53 | 03 02 31 Z | 03 47 Z | No | | | |
| 2484 | 148.53 | 13 13 13 Z | 13 20 Z | No | | | |
| 2485 | 123.21 | 14 55 00 Z | 14 58 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

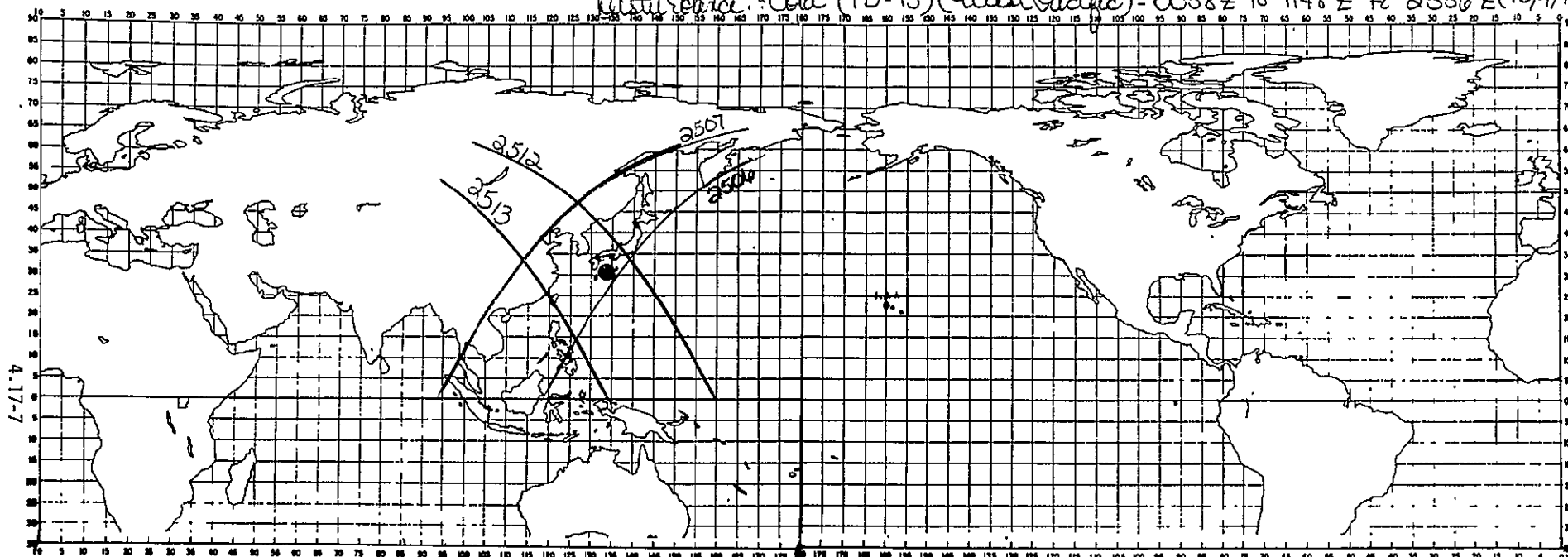


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0004Z | 21.5N | 129.0E |
| 1051Z | 23.9N | 128.8E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2491 | -88.73 | 01 05 43 Z | 01 52 Z | No | | | |
| 2492 | -54.06 | 02 47 30 Z | 03 31 Z | No | | | |
| 2498 | 154.01 | 12 58 12 Z | 13 07 Z | No | | | |
| 2499 | 123.68 | 14 40 00 Z | 14 45 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Cela" (TD-15) (West Pacific) - 0058Z to 1148Z to 2356Z (10/4/73)

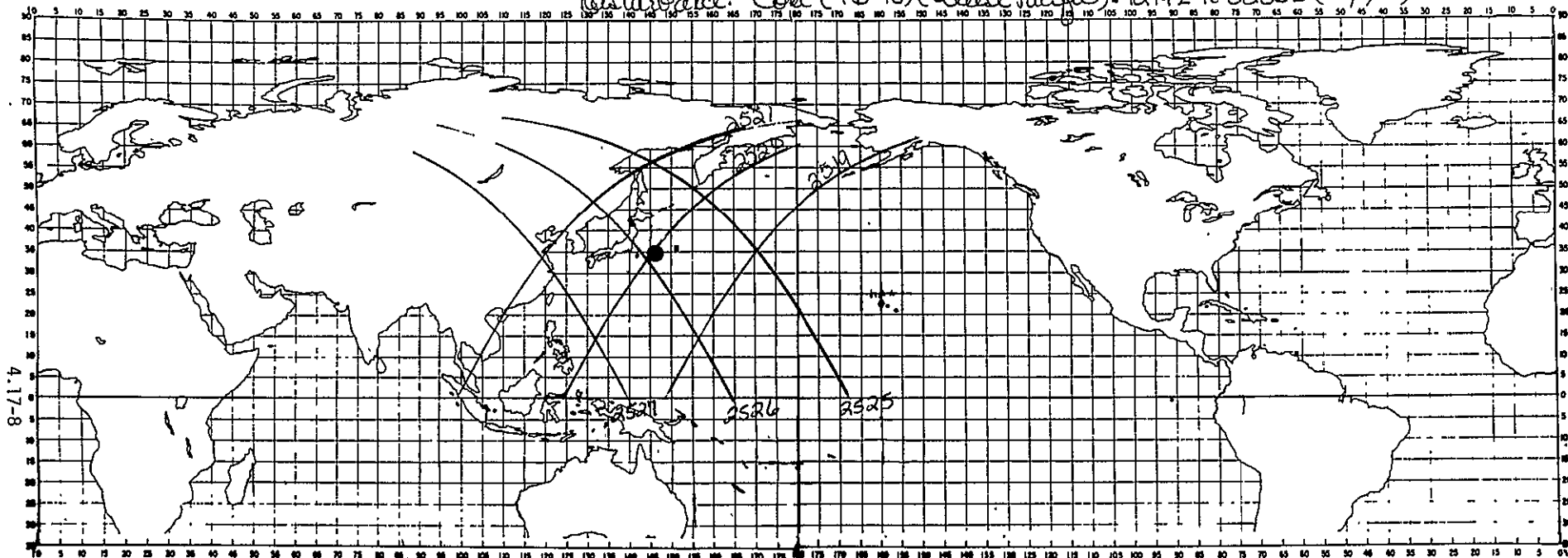


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0058Z | 26.3N | 131.2E |
| 1148Z | 29.2N | 131.2E |
| 2356Z | 31.7N | 135.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2506 | -48.58 | 02 32 29 Z | 03 14 Z | No | | | |
| 2507 | -73.90 | 04 14 16 Z | 04 53 Z | No | | | |
| 2512 | 159.49 | 12 43 11 Z | 12 53 Z | No | | | |
| 2513 | 134.17 | 14 24 58 Z | 14 32 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Cora" (TD-15) (West Pacific) - 1249Z to 2255Z (10/5/75)

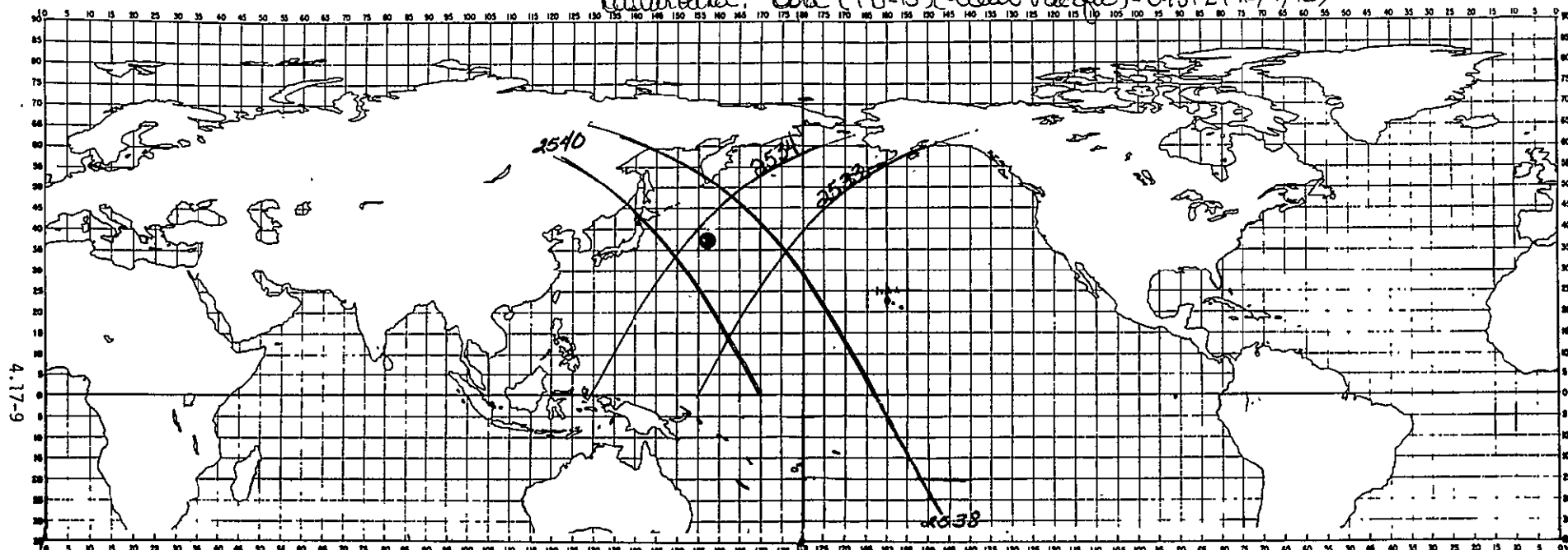


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1249Z | 34.0N | 142.0E |
| 2255Z | 35.5N | 151.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2519 | -17.77 | 00 35 41 Z | 01 19 Z | 010603 | 013308 | 802 | 197 |
| 2520 | -43.09 | 02 17 28 Z | 02 57 Z | No | | | |
| 2521 | -68.42 | 03 59 15 Z | 04 34 Z | No | | | |
| 2525 | 169.71 | 10 46 23 Z | 11 01 Z | No | | | |
| 2526 | 164.97 | 12 28 10 Z | 12 38 Z | No | | | |
| 2527 | 139.64 | 14 09 57 Z | 14 17 Z | No | | | |

Disturbed: "Cora" (TO-15) (West Pacific) - 0951Z (10/6/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0951Z | 37.5N | 157.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

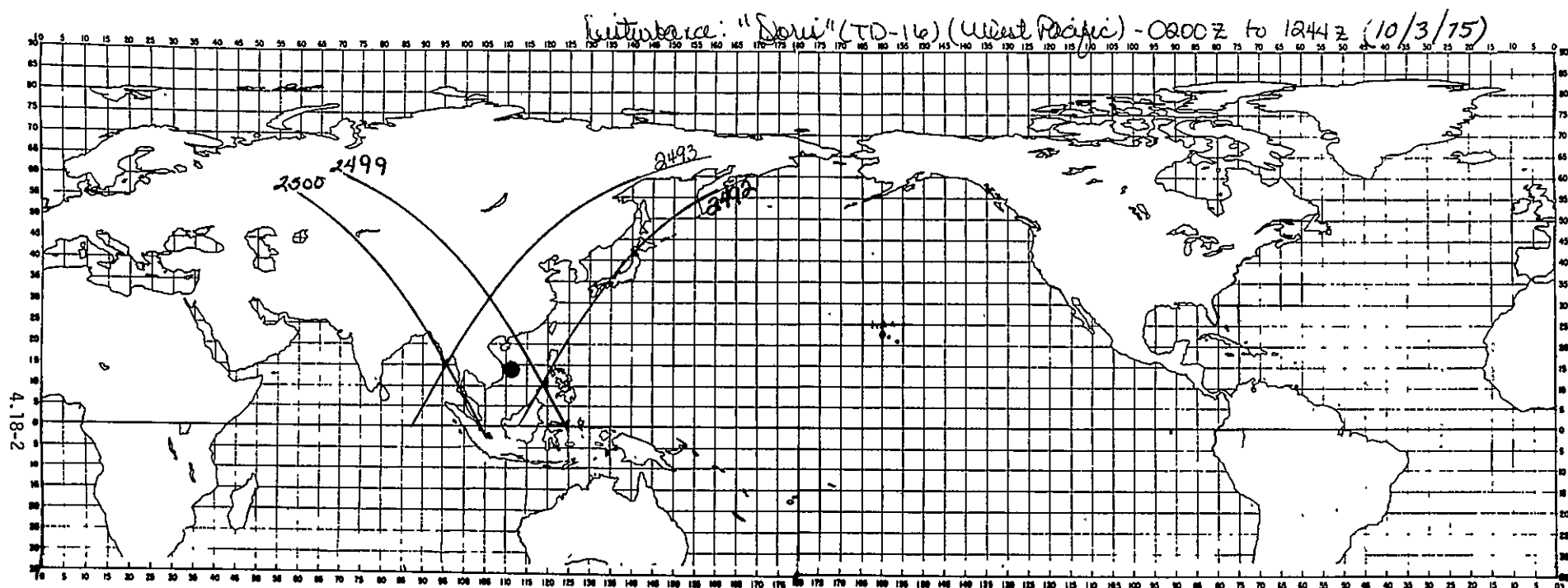
| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2533 | -12.30 | 00 20 40 Z | 01 03 Z | No | | | |
| 2534 | -37.62 | 02 02 27 Z | 02 41 Z | No | | | |
| 2538 | -138.91 | 08 49 35 Z | 10 45 Z | 102049 | 102301 | 802 | 226 |
| 2540 | 170.44 | 12 13 10 Z | 12 23 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

DISTURBANCE: "DORIS" (TD-16) (WESTERN PACIFIC)

DATE: OCTOBER 3 - OCTOBER 6, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|------|----------------|----------------------|-----------------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 10/3 | 0200Z 1244Z | 14.0N 15.0 | 111.0E 111.0 | | | |
| 10/4 | 0101Z 1339Z | 16.6N 17.8 | 111.6E 112.6 | | | |
| 10/5 | 0155 1245 | 18.8N 21.0 | 112.7E 113.1 | | | |
| 10/6 | 0055 | 23.0N (Over Land) | 113.0E | | | |

NOTE: See track map, page 4.1-7.

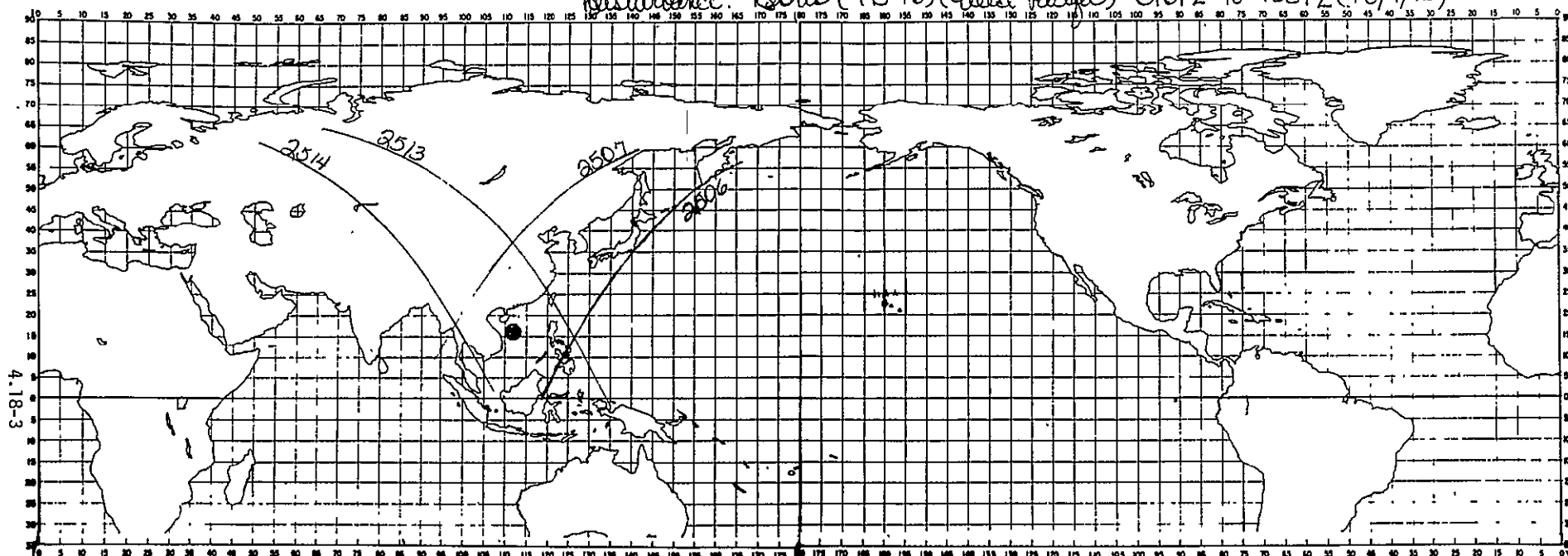


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0200Z | 14.0N | 111.0E |
| 1244Z | 15.0N | 111.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2492 | -54.06 | 02 47 30 Z | 03 35 Z | Do | | | |
| 2493 | -79.33 | 04 29 17 Z | 05 14 Z | Do | | | |
| 2499 | 123.68 | 14 40 00 Z | 14 45 Z | Do | | | |
| 2500 | 103.36 | 16 21 47 Z | 16 25 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Dori" (TD-16) (West Pacific) - 0101Z to 1339Z (10/4/75)

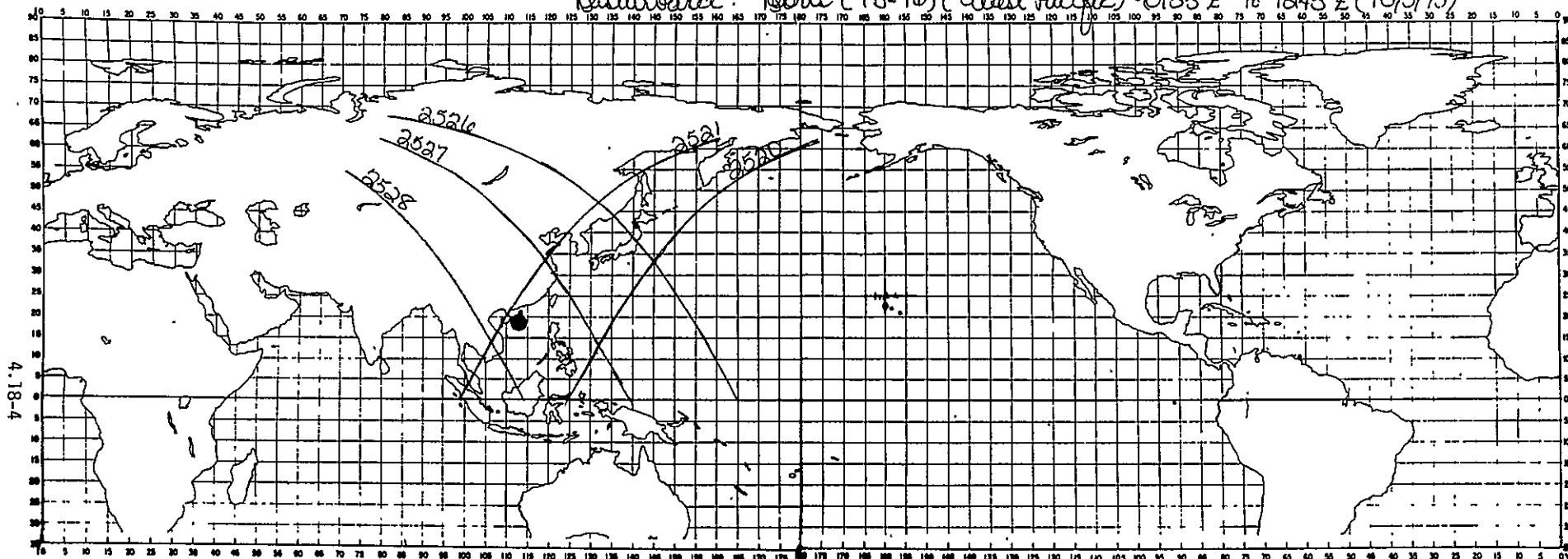


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0101Z | 16.6N | 111.6E |
| 1339Z | 17.8N | 112.6E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2506 | -48.58 | 02 32 29 Z | 03 17 Z | Do | | | |
| 2507 | -78.90 | 04 14 16 Z | 05 01 Z | Do | | | |
| 2513 | 134.17 | 14 24 58 Z | 14 31 Z | Do | | | |
| 2514 | 108.85 | 16 06 45 Z | 16 11 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Nori" (TD-16) (West Pacific) - 0155Z to 1845Z (10/5/75)

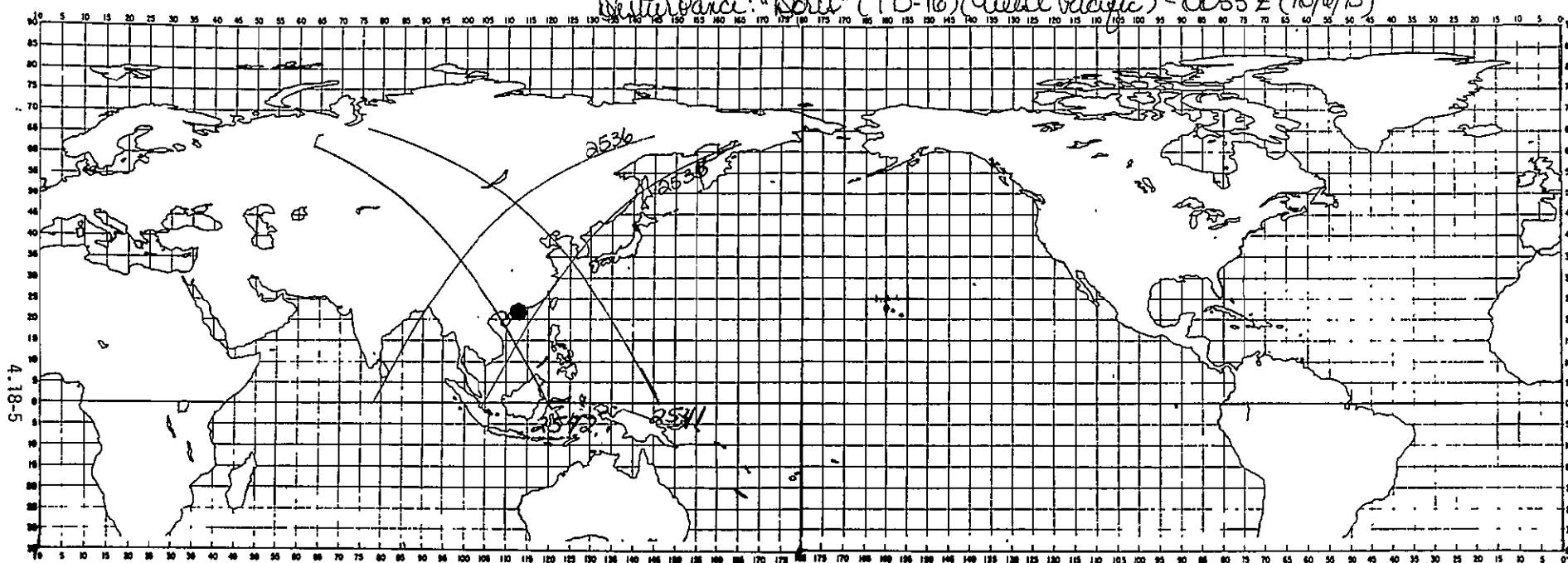


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0155Z | 18.8N | 112.7E |
| 1845Z | 21.0N | 113.1E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2520 | -43.09 | 02 17 28 Z | 03 03 Z | Do | | | |
| 2521 | -68.42 | 03 59 15 Z | 04 44 Z | Do | | | |
| 2526 | 164.97 | 12 28 10 Z | 12 38 Z | Do | | | |
| 2527 | 139.64 | 14 09 57 Z | 14 18 Z | Do | | | |
| 2528 | 114.32 | 15 51 45 Z | 15 57 Z | Do | | | |
| | | | | | | | |

Disturbance: "Srie" (TD-16) (West Pacific) - 0055Z (10/6/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0055Z | 23.0N | 113.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2535 | -62.94 | 03 44 14 Z | 04 28 Z | Do | | | |
| 2536 | -88.26 | 05 36 01 Z | 06 08 Z | Do | | | |
| 2541 | 145.12 | 13 54 57 Z | 14 05 Z | Do | | | |
| 2542 | 119.79 | 15 36 44 Z | 15 43 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON ELSIE

(October 8 - October 15, 1975)

Meteorological History/Data

By the 6th of October, the monsoonal trough had become quite active and was oriented east-west along 8N from the Philippines to 160E. Typhoon Elsie developed in this trough with a well-defined surface circulation located approximately 250 nm southwest of Guam on the 8th. The first warning was issued on the morning of the 9th and Elsie attained typhoon strength 48 hours later. At this point, Elsie began slowing down as the storm approached the western extent of the mid-tropospheric subtropical ridge.

Elsie then underwent explosive deepening and aircraft reconnaissance recorded a 69 mb drop in the central pressure at the typhoon center between the 102052Z and 111430Z fixes. The maximum surface winds increased from 65 knots to 135 knots during this period.

As Elsie approached the Bashi Channel, Basco, in the Bataan Islands (WMO station 98135, elev 184 ft), 40 nm east of Elsie's center, reported maximum sustained winds of 65 knots. Elsie continued moving west-northwest through the Bataan Islands on the 12th. As the subtropical ridge then built westward, Elsie began a more westerly track into the South China Sea. As the typhoon entered the South China Sea, it began to weaken with inflow restricted to the north by the Asian continent. Still, the Royal Observatory, Hong Kong, reported that typhoon Elsie was one of the most intense typhoons ever to affect Hong Kong in the month of October. Royal Observatory radar began tracking the storm by late afternoon on the 13th and Elsie passed 35 nm to the south of Hong Kong on the 14th. At that time the maximum sustained winds recorded at Hong Kong were 70 knots with gusts up to 118 knots. The lowest pressure recorded in Hong Kong was 987.5 mb.

After passing south of Hong Kong, Elsie continued westward, making land-fall on the southern China coast at approximately 1500Z on the 14th. Elsie then dissipated rapidly over the Asian mainland.

Damage Estimates

Fortunately, the maximum winds occurred at a low tide, thus reducing flooding. Seven ocean-going vessels drifted from their moorings and one small craft and a fishing junk capsized. There were no fatalities reported, but 46 people were injured by flying debris.

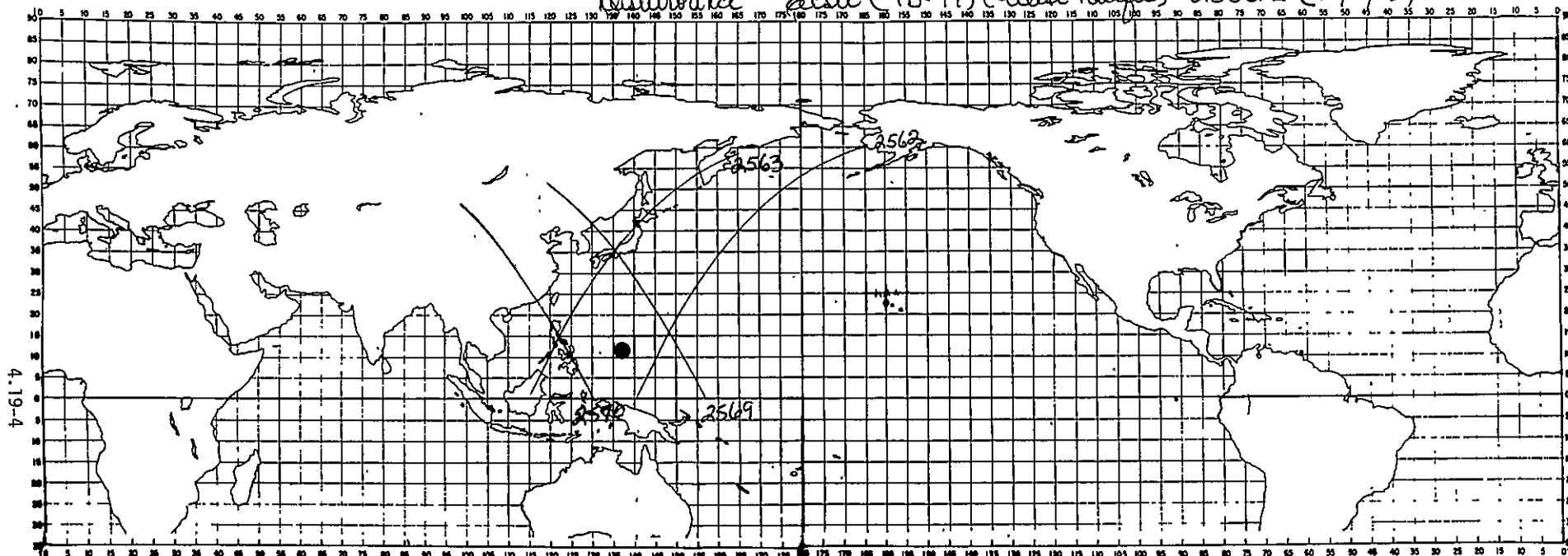
TYPHOON ELSIE
BEST TRACK TC-17
09 OCT-15 OCT 1975
MAX SFC WIND 135 KTS
MINIMUM SLP 900 MBS

DISTURBANCE: 'ELSIE" TD-17; (WESTERN PACIFIC)

DATE: OCTOBER 8 - OCTOBER 15, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------------------|-----------------------|--------------------------|------------------|---------------|---------------|
| | | Latitude | Longitude | | | |
| 10/8 | 2352Z | 12.0N | 137.8E | | | |
| 10/9 | 1034Z | 14.5N | 135.5E | | | |
| 10/10 | 0045Z 1129Z 2346Z | 16.0N 18.5 17.9 | 133.4E 130.5 127.7 | | | |
| 10/11 | 1225Z | 19.5N | 124.8E | | 75 | Typhoon |
| 10/12 | 0039Z 1320Z | 20.3N 21.3 | 122.9E 120.5 | | 135 | Super Typhoon |
| 10/13 | 0135Z 1221Z | 21.6N 21.6 | 118.7E 117.2 | | | |
| 10/14 | 0035Z 1316Z | 21.8N 22.0 | 115.1E 113.7 | | | |
| 10/15 | ? | 23.0N (Over Land) | 111.0W | | | |

Disturbance "Elsie" (TD-17) (West Pacific) - 2352Z (10/8/75)



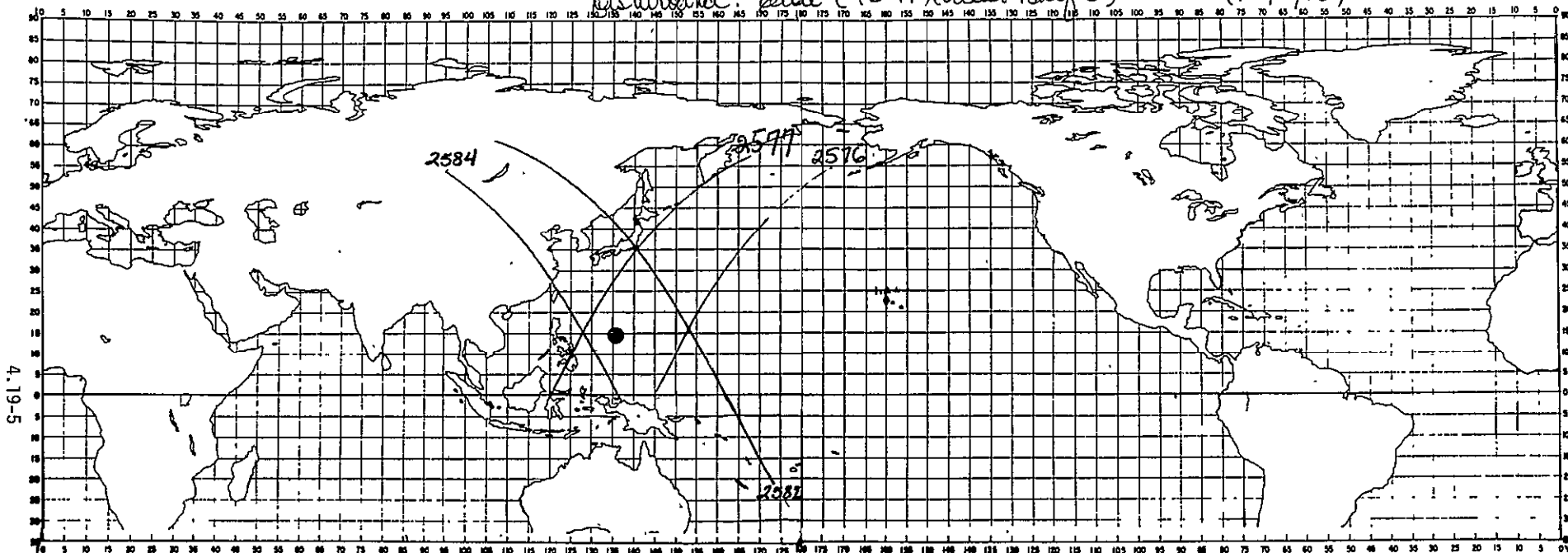
LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2352Z | 12.0N | 137.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2562 | -26.67 | 01 32 25 Z | 02 21 Z | 021717 | 022808 | 802 | 251 |
| 2563 | -52.00 | 03 14 13 Z | 03 59 Z | No | | | |
| 2569 | +156.07 | 13 24 55 Z | 13 30 Z | No | | | |
| 2570 | +130.74 | 15 06 42 Z | 15 09 Z | No | | | |
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Disturbance: "Elmer" (TD-17) (West Pacific) - 1034Z (10/9/75)

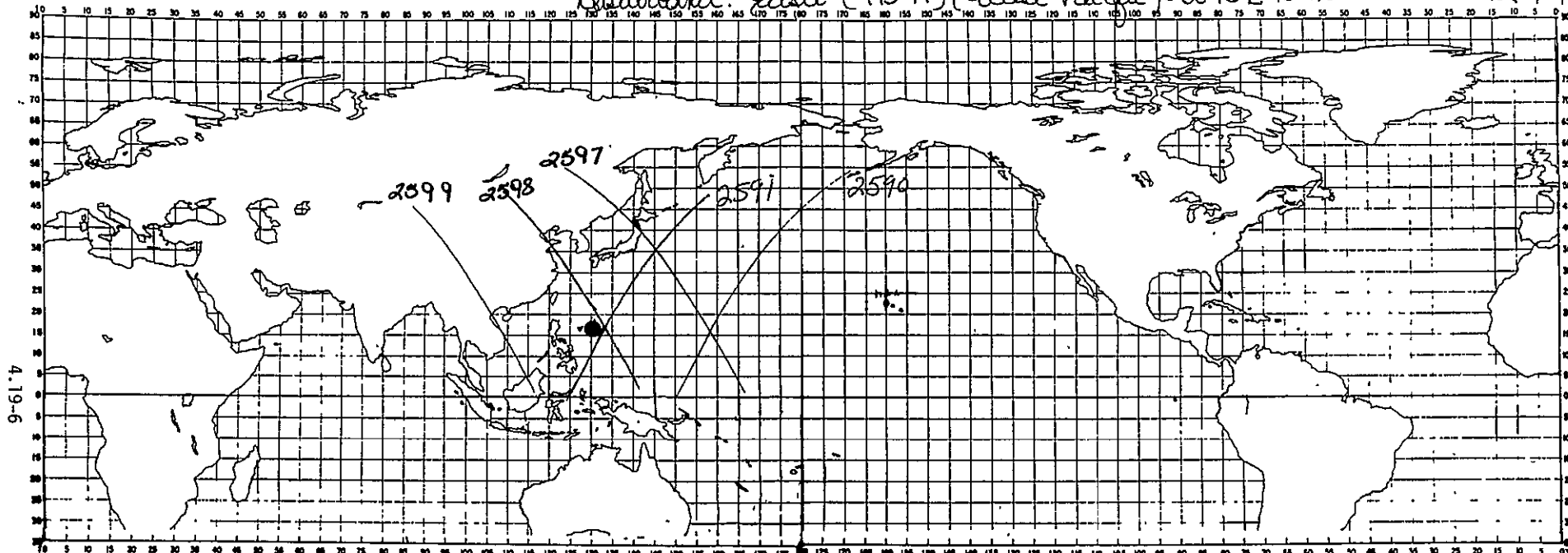


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1034Z | 14.5N | 136.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2576 | -21.20 | 01 17 25 Z | 02 05 Z | No | | | |
| 2577 | -46.52 | 02 59 12 Z | 03 45 Z | No | | | |
| 2582 | -173.14 | 11 28 07 Z | 13 17 Z | 131155 | 131935 | 802 | 275 |
| 2584 | +136.22 | 14 51 41 Z | 14 54 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

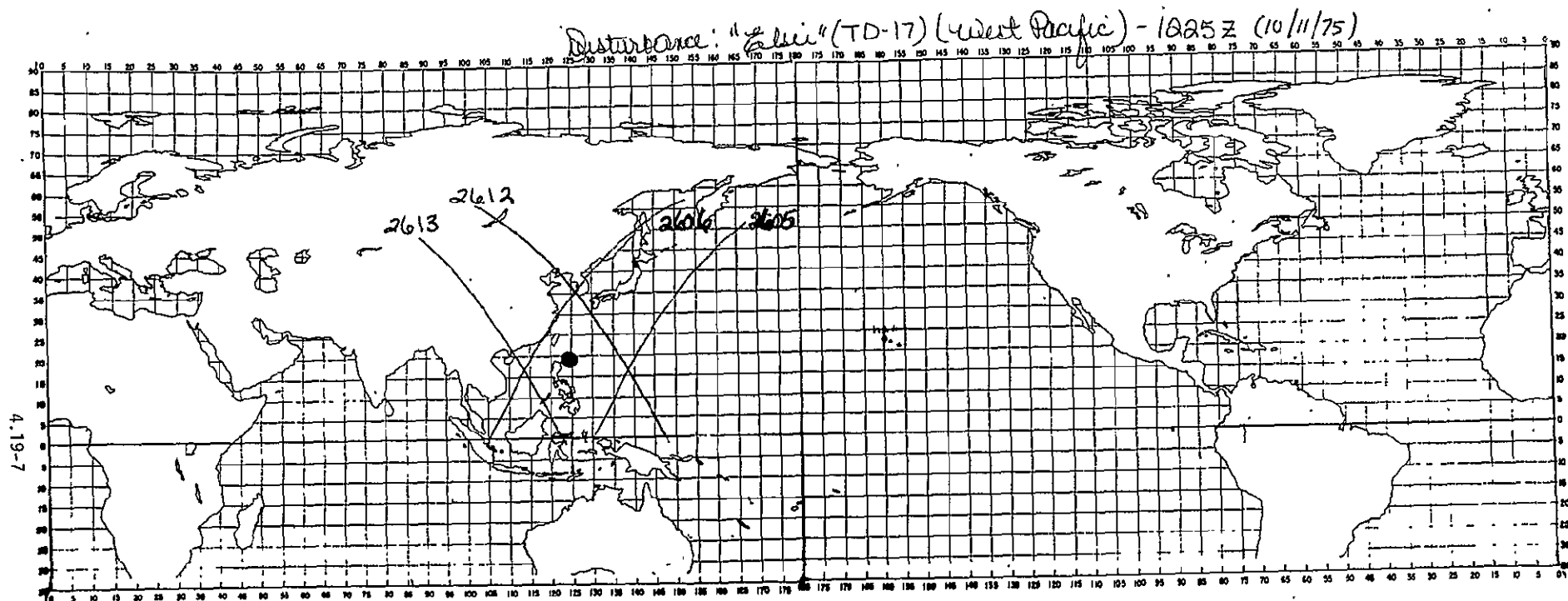
Disturbance: "Elui" (TD-17) (West Pacific) - 0045 Z to 1129 Z to 2346 Z (10/10/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0045Z | 116.0N | 133.4E |
| 1129Z | 18.5N | 130.5E |
| 2346Z | 17.9N | 127.7E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2590 | -15.72 | 01 02 24 Z | 01 52 Z | 015025 | 015849 | 802 | 281 |
| 2591 | -41.05 | 02 44 11 Z | 03 31 Z | Do | | | |
| 2597 | +167.02 | 12 54 53 Z | 13 04 Z | Do | | | |
| 2598 | +141.09 | 14 36 41 Z | 14 43 Z | Do | | | |
| 2599 | +116.37 | 16 18 28 Z | 16 20 Z | Do | | | |

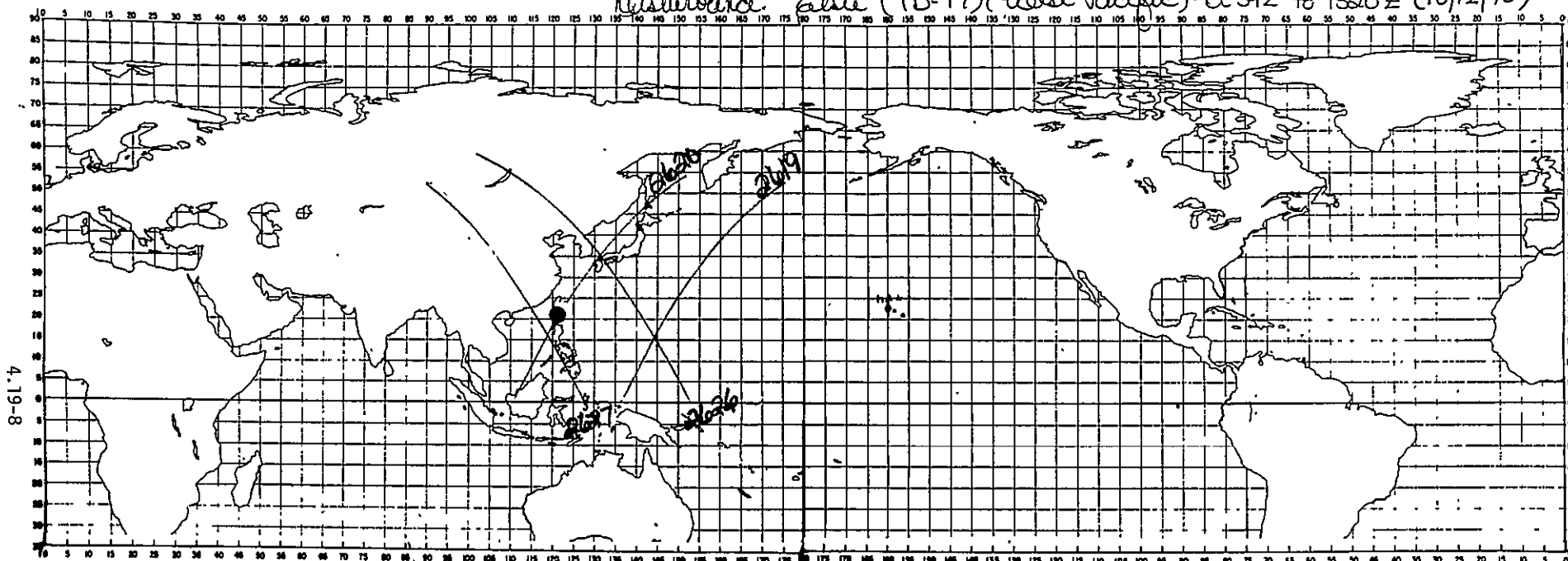


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1025Z | 19.5N | 104.8E |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2605 | -35.57 | 02 29 10 Z | 03 16 Z | 031143 | 032332 | 802 | 302 |
| 2606 | -60.90 | 04 10 57 Z | 04 55 Z | No | | | |
| 2612 | +147.16 | 14 21 40 Z | 14 29 Z | No | | | |
| 2613 | +121.84 | 16 03 27 Z | 16 07 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Elui" (TD-17) (West Pacific) - 0039Z to 1320Z (10/12/75)

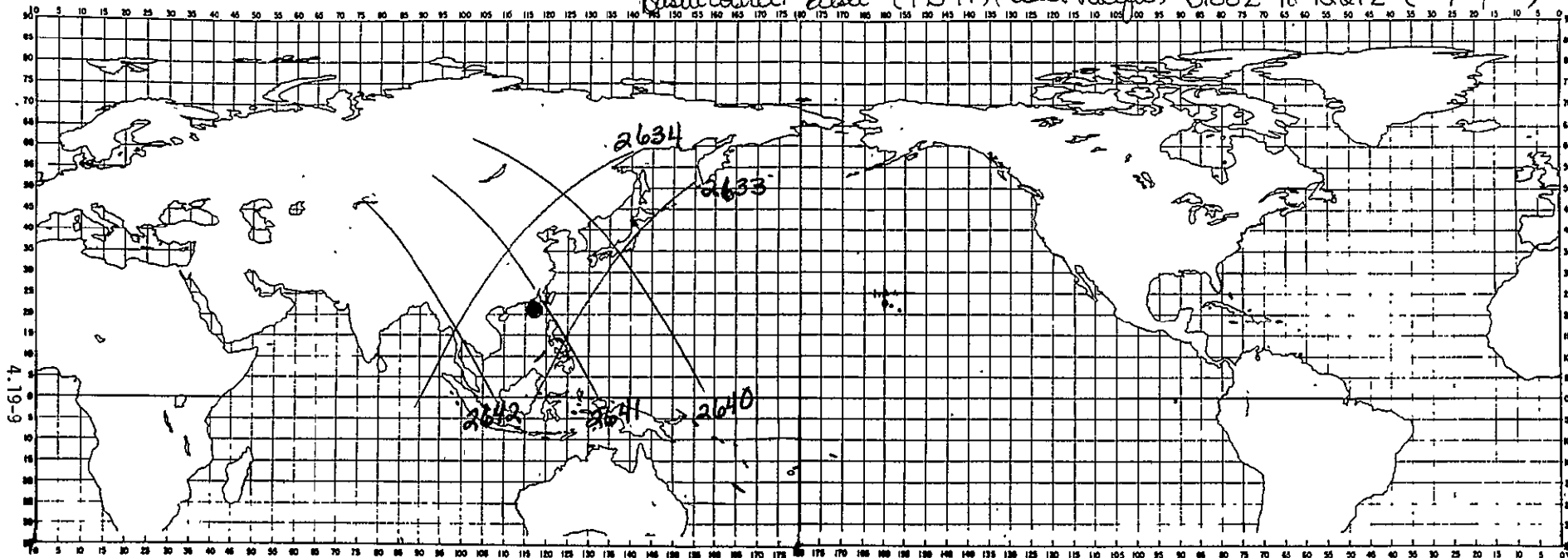


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0039Z | 20.3N | 122.9E |
| 1320Z | 21.3N | 120.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2619 | -30.10 | 02 14 09 Z | 03 02 Z | 025806 | 030919 | 802 | 317 |
| 2620 | -55.42 | 03 55 56 Z | 04 41 Z | No | | | |
| 2626 | +152.04 | 14 06 39 Z | 14 16 Z | No | | | |
| 2627 | +127.32 | 15 48 26 Z | 15 54 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Elui" (TD-17) (West Pacific) - 0135Z to 1221Z (10/13/75)

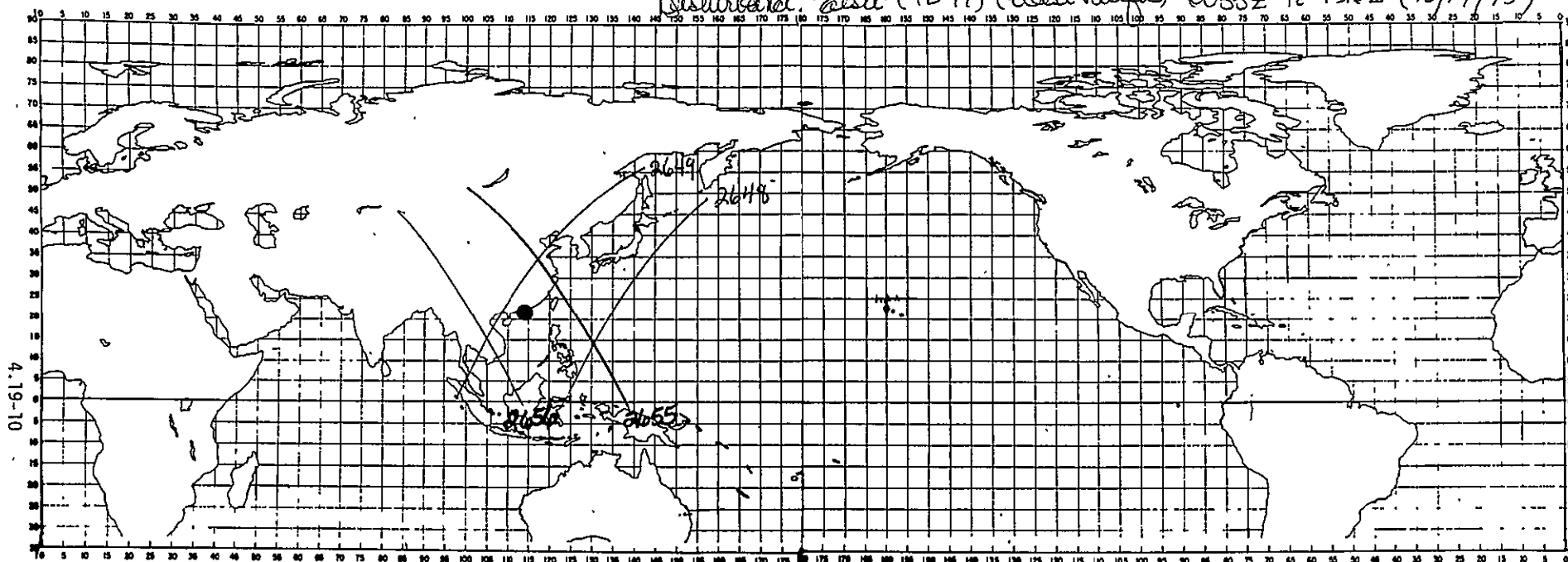


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0135Z | 21.6N | 118.7E |
| 1221Z | 21.6N | 117.2E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2633 | -49.95 | 03 40 56 Z | 04 27 Z | Do | | | |
| 2634 | -75.27 | 05 22 43 Z | 06 06 Z | Do | | | |
| 2640 | +158.11 | 13 51 38 Z | 14 02 Z | Do | | | |
| 2641 | +132.79 | 15 33 25 Z | 15 40 Z | Do | | | |
| 2642 | +107.47 | 17 15 12 Z | 17 20 Z | Do | | | |
| | | | | | | | |

Subsidiary: "Elsu" (TD-17) (West Pacific) - 0035Z to 1316Z (10/14/75)



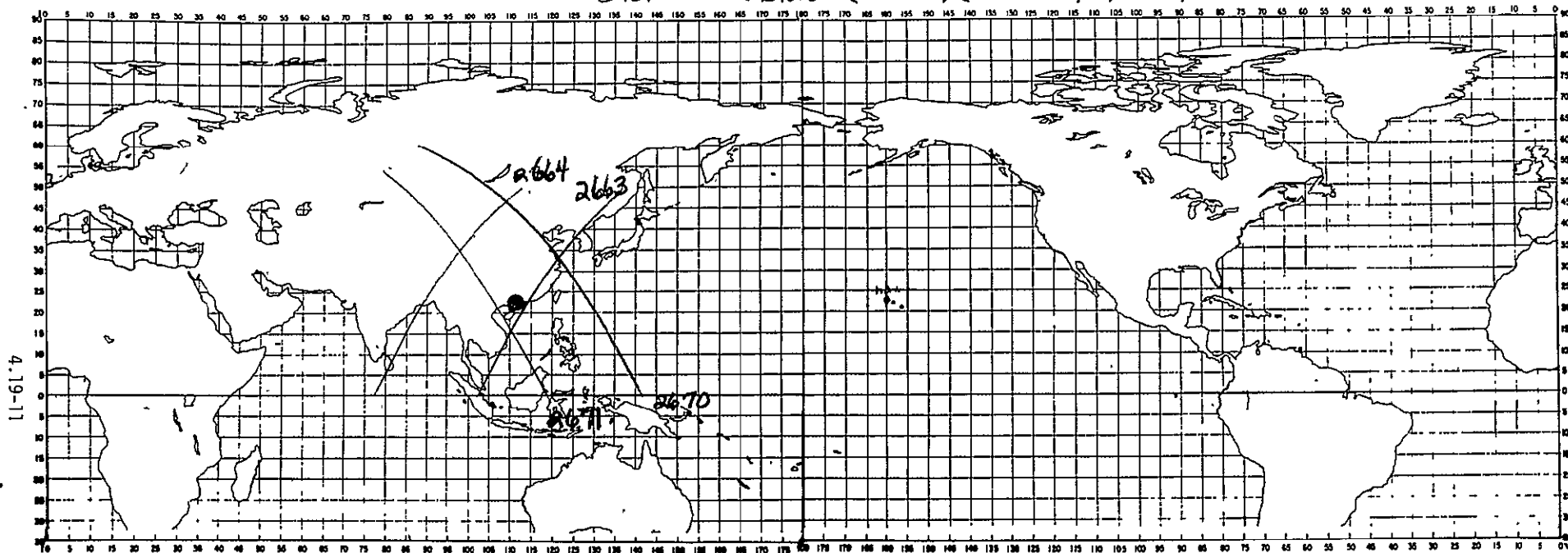
LOCATION

REPRODUCIBILITY OF THIS
ORIGINAL PAGE IS NOT

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0035Z | 21.8N | 115.1E |
| 1316Z | 22.0N | 113.7E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2648 | -44.47 | 03 25 55 Z | 04 13 Z | No | | | |
| 2649 | -69.80 | 05 07 42 Z | 05 52 Z | No | | | |
| 2655 | +138.27 | 15 18 24 Z | 15 26 Z | No | | | |
| 2656 | +112.94 | 17 00 11 Z | 17 05 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Elsie" (TD-17) (West Pacific) - 10/15/75



LOCATION OVER LAND

| TIME | LATITUDE | LONGITUDE |
|------|----------|-----------|
| ? | 23.0N | 111.0W |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2663 | -64.32 | 04 52 41 Z | 05 38 Z | No | | | |
| 2664 | -89.64 | 06 34 23 Z | 07 16 Z | No | | | |
| 2670 | +143.74 | 15 03 23 Z | 15 12 Z | No | | | |
| 2671 | +118.42 | 16 45 10 Z | 16 51 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

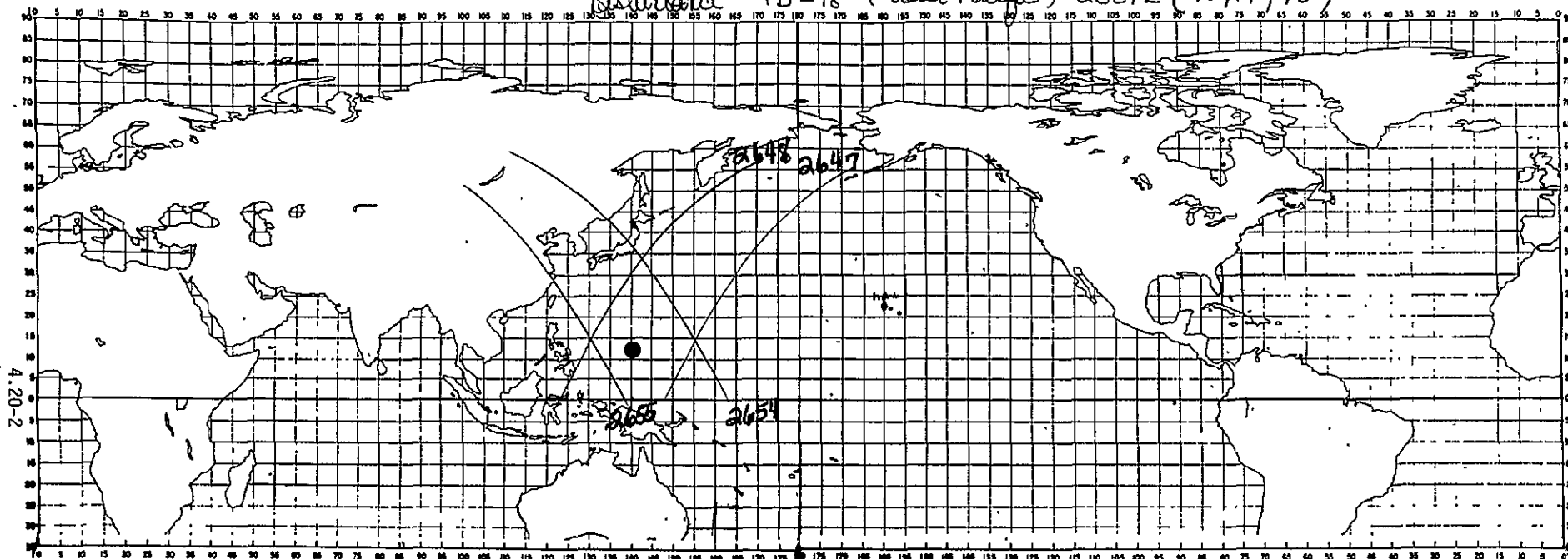
DISTURBANCE: TD-18 (WESTERN PACIFIC)

DATE: OCTOBER 14 - OCTOBER 19, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|----------|-----------|------------------|---------------|-------|
| | | Latitude | Longitude | | | |
| 10/14 | 2337Z | 13.5N | 140.0E | | | |
| 10/15 | 1018Z | 13.5N | 136.0E | | | |
| 10/16 | 0032Z | 13.5N | 133.0E | | | |
| | 1113Z | 13.5 | 133.5 | | | |
| | 2332Z | 13.9 | 131.3 | | | |
| 10/17 | 1200Z | 14.0N | 126.0E | | | |
| 10/18 | 0027Z | 14.0N | 122.5E | | | |
| | 1304Z | 16.4 | 120.8 | | | |
| 10/19 | 1200Z | 18.0N | 120.0E | | | |

NOTE: See track map, page 4.1-5.

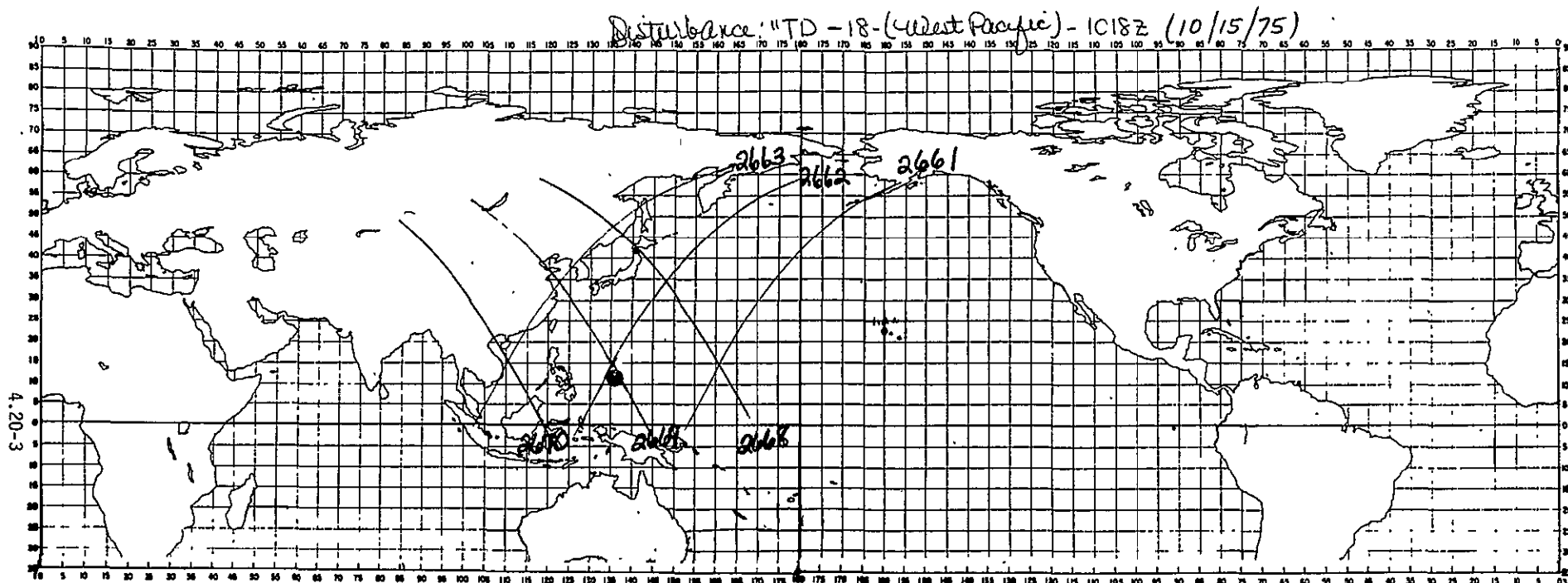
Naturance " TD-18'-(4000 Pacific)-2337Z (10/14/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 2337Z | 13.5N | 140.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2647 | 01 44 08 | -19.15 Z | 02 32 Z | No | | | |
| 2648 | 03 25 55 | -44.47 Z | 04 12 Z | No | | | |
| 2654 | 13 36 37 | +163.59 Z | 13 43 Z | No | | | |
| 2655 | 15 18 24 | +138.27 Z | 15 01 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

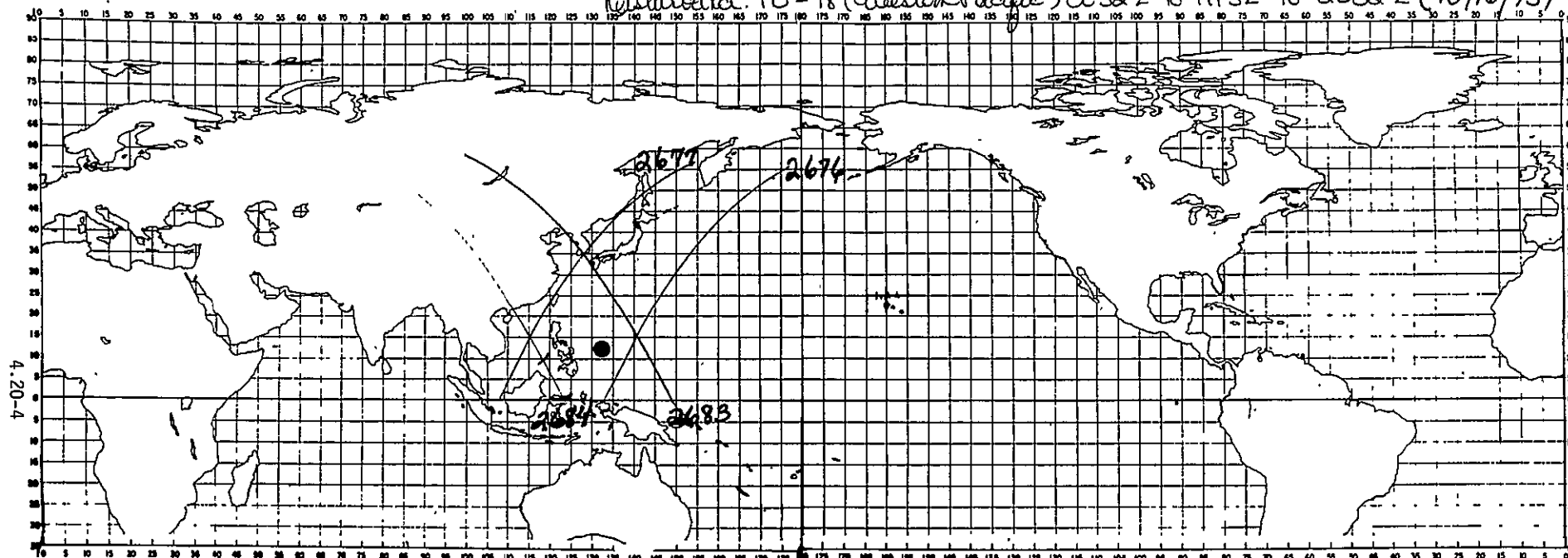


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1018Z | 135N | 1360E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2661 | -13.67 | 01 29 07 Z | 02 19 Z | No | | | |
| 2662 | -39.00 | 03 10 54 Z | 03 58 Z | No | | | |
| 2663 | -64.32 | 04 52 41 Z | 05 38 Z | No | | | |
| 2668 | +169.06 | 13 21 36 Z | 13 29 Z | No | | | |
| 2669 | +143.74 | 15 03 23 Z | 15 06 Z | No | | | |
| 2670 | +118.42 | 16 45 10 Z | 16 47 Z | No | | | |

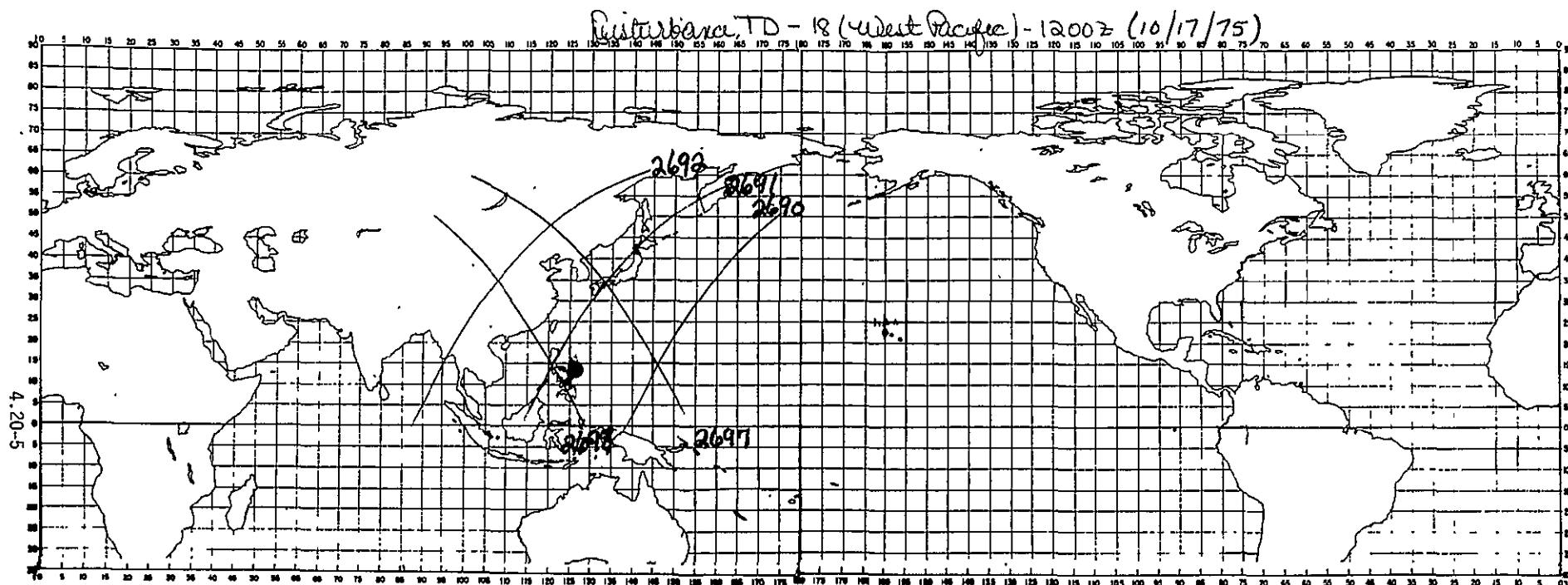
Disturbance: TD-18 (Western Pacific) 0032Z to 1113Z to 2332Z (10/16/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0032Z | 13.5N | 133.0E |
| 1113Z | 13.5N | 133.5E |
| 2332Z | 13.9N | 131.3E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

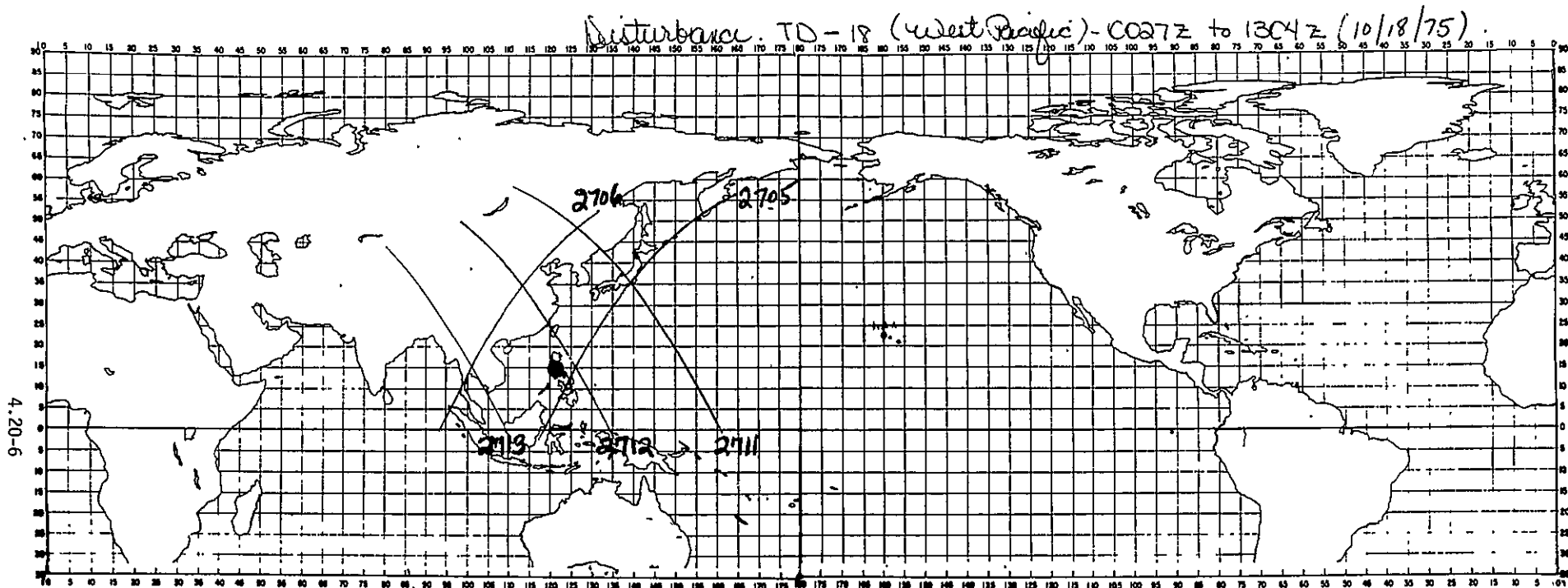
| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2676 | -33.52 | 02 55 53 Z | 03 44 Z | No | | | |
| 2677 | -58.85 | 04 37 40 Z | 05 23 Z | No | | | |
| 2683 | +149.21 | 14 48 23 Z | 14 53 Z | No | | | |
| 2684 | +123.89 | 16 30 10 Z | 16 33 Z | No | | | |
| | | | | | | | |
| | | | | | | | |



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1200Z | 14.0N | 126.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

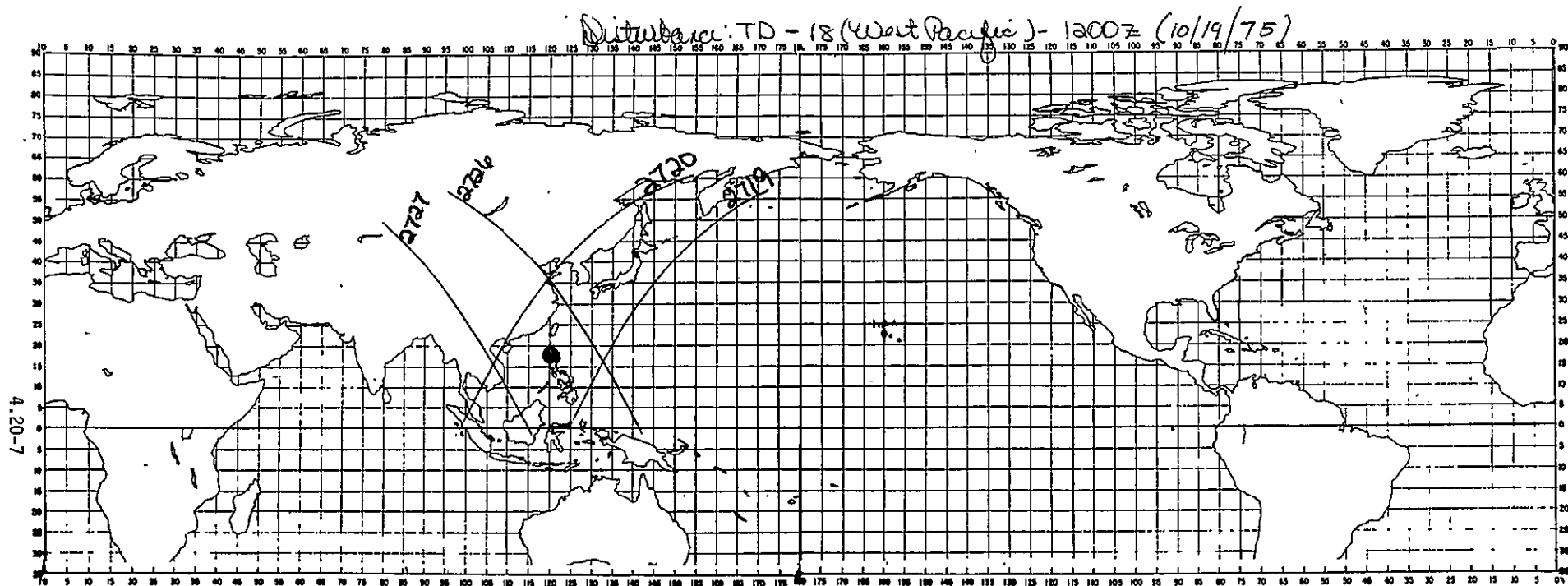
| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|---------|------|--------|
| 2690 | -28.09 | 02 40 52 Z | 03 29 Z | 0.3523 | 0.33628 | 802 | 394 |
| 2691 | -53.37 | 04 22 39 Z | 05 09 Z | No | | | |
| 2692 | -78.69 | 06 04 26 Z | 06 48 Z | No | | | |
| 2697 | +154.69 | 14 33 22 Z | 14 39 Z | No | | | |
| 2698 | +129.36 | 16 15 09 Z | 16 18 Z | No | | | |
| | | | | | | | |



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0027Z | 14.0N | 132.5E |
| 1304Z | 16.4N | 120.8E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2705 | - 47.90 | 04 07 38 Z | 04 55 Z | No | | | |
| 2706 | - 73.82 | 05 49 26 Z | 06 34 Z | No | | | |
| 2711 | + 160.16 | 14 18 21 Z | 14 26 Z | No | | | |
| 2712 | + 134.84 | 16 00 08 Z | 16 05 Z | No | | | |
| 2713 | + 109.52 | 17 41 55 Z | 17 45 Z | No | | | |
| | | | | | | | |



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1200Z | 18.0N | 120.0E |
| | | |
| | | |
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| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2719 | -42.42 | 03 52 38 Z | 04 40 Z | No | | | |
| 2720 | -67.75 | 05 34 25 Z | 06 18 Z | No | | | |
| 2726 | +140.31 | 15 45 07 Z | 15 52 Z | No | | | |
| 2727 | +114.99 | 17 26 54 Z | 17 33 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

TYPHOON FLOSSIE

(October 20 - October 23, 1975)

Meteorological History/Data

The circulation which was to become typhoon Flossie was first analyzed 500 nm west-southwest of Guam on the 0000Z surface analysis of 14 October. This disturbance, apparently initiated by an upper tropospheric cyclone, then began drifting west. Its development was somewhat retarded on the 15th and 16th by the presence of TD-18, a disturbance 420 nm to the north-northeast. On the 19th, the disturbance (Flossie) moved into the South China Sea after crossing Luzon and began to intensify.

The first warning was issued on the morning of the 20th based on satellite and synoptic data. Early the next morning reconnaissance aircraft reported a central pressure of 989 mb and TD-19 was upgraded to Tropical Storm Flossie.

Midtropospheric ridging extending from the central North Pacific to the northern portion of the South China Sea was the controlling factor in steering Flossie. A weakness developed in this ridge during the next few days, producing extremely weak steering flow. This caused the storm to follow an erratic track during the period from 200000Z to 211200Z.

A container ship, the SS Mayaquez, reported a pressure of 980 mb and 60-knot winds on the afternoon of the 21st. At that time the Mayaquez was 40 nm south-southwest of the storm center. Flossie was upgraded to typhoon on the afternoon of the 22nd when located about 250 nm south of Hong Kong.

Flossie reached a maximum intensity of 70 knots on the evening of the 22nd. By the 23rd, the midtropospheric ridging was reestablished, and Flossie tracked northwest in the expected climatological direction for this area and time of year. As the typhoon approached landfall on the 23rd, its circulation was disrupted in the northeast quadrant by the terrain and its intensity began to diminish rapidly. Flossie made landfall on the afternoon of the 23rd on the northeast portion of the Luichow Peninsula. Winds at that time were down to 50 knots.

Although Typhoon Flossie's maximum winds were only 70 knots, the seas generated in the northern South China Sea remained a threat to shipping for several days.

Damage Estimates/Loss of Life

Two timber freighters, the Ming Sing and Kinabalu Satu, sunk between Flossie and the southern approaches to Hong Kong on the 21st and 22nd, respectively. Due to the high seas and typhoon force winds, all rescue efforts failed and a total of 44 men were lost. Three survivors were picked up in a lifeboat a week later.

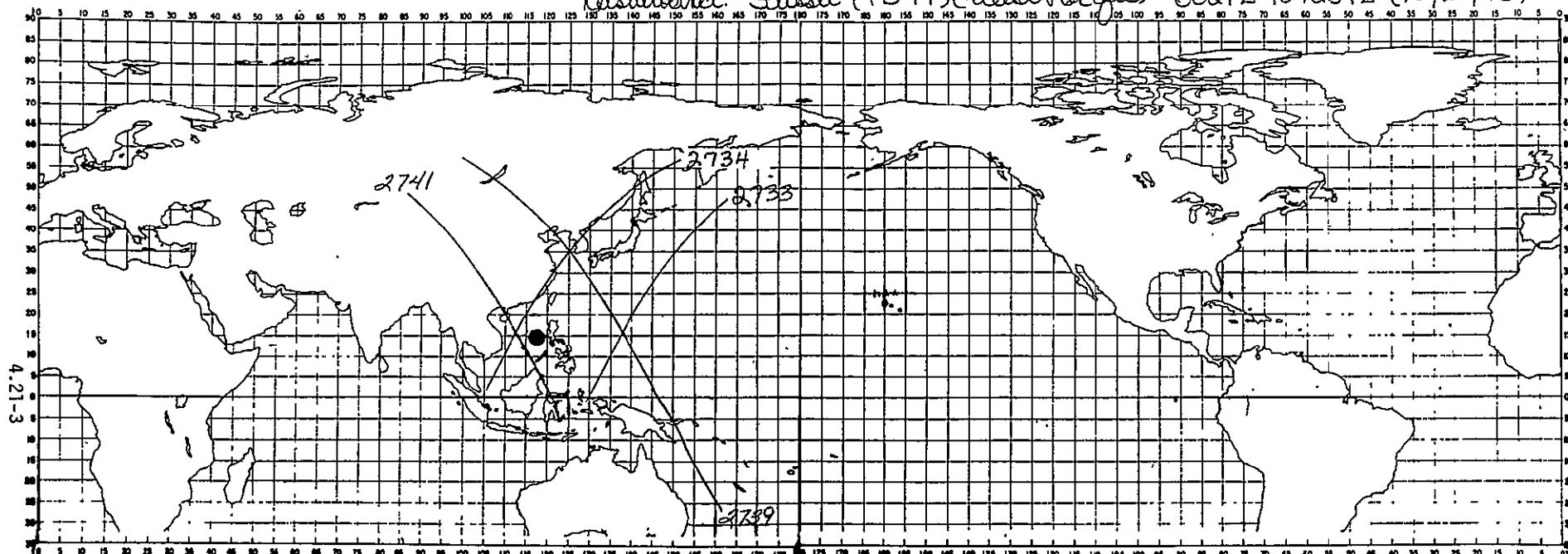
DISTURBANCE: TD-19, Flossie

DATE: October 20 - 23, 1975

| Date | Time GMT | Position | | Pressure (MB) | Wind (KTS) | Stage |
|-------|----------------|----------------|------------------|------------------|---------------|----------------|
| | | Latitude | Longitude | | | |
| 10/20 | 0021Z 1259Z | 14.5N 14.0N | 117.5E 117.0E | | | |
| 10/21 | 0116Z 1200Z | 15.5N 16.8N | 116.2E 115.3E | 989 980 | 60 | Tropical Storm |
| 10/22 | 1210Z 1256Z | 17.8N 19.1N | 115.2E 113.2E | | | Typhoon |
| 10/23 | 0110Z 1351Z | 20.0N 23.0N | 111.5E 108.0E | | 50 | Tropical Storm |

NOTE: See track map, page 4.1-8.

Disturbance: "Glosser" (TD-19) (West Pacific) - 0021Z to 1259Z (10/20/75)

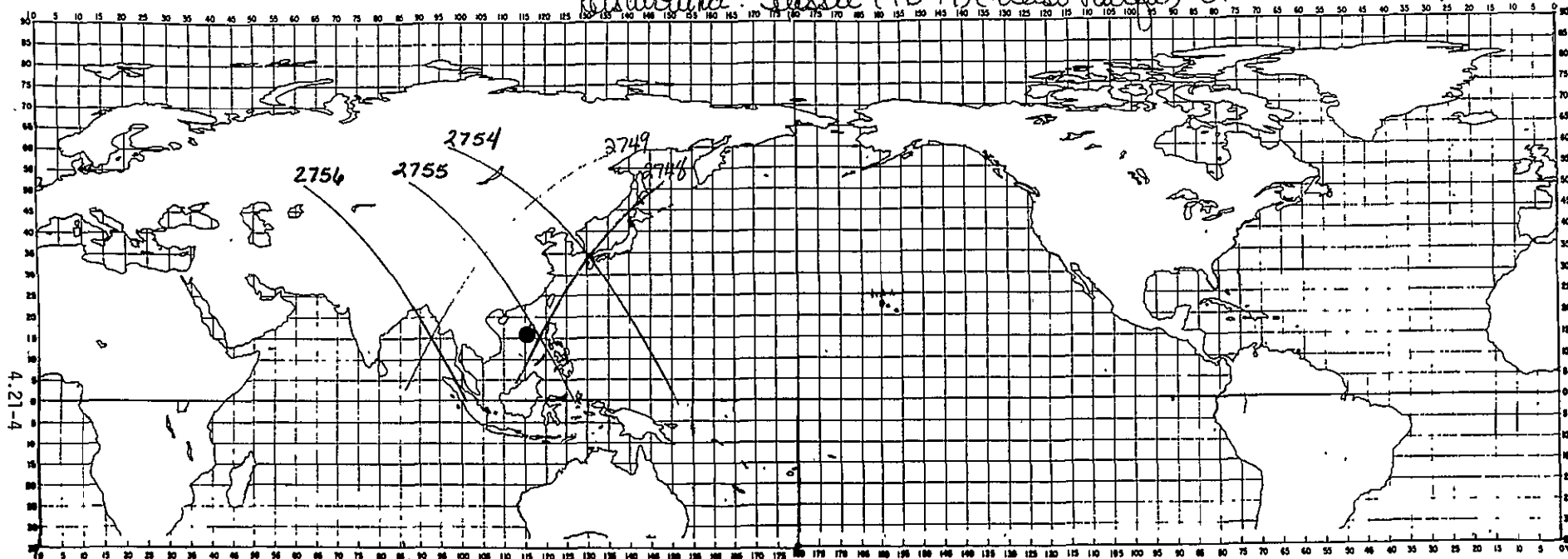


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0021Z | 14.5N | 117.5E |
| 1259Z | 15.0N | 117.0E |
| — | — | — |
| — | — | — |
| — | — | — |
| — | — | — |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2733 | -36.95 | 03 37 37 Z | 04 25 Z | Do | | | |
| 2734 | -62.27 | 05 19 24 Z | 06 05 Z | Do | | | |
| 2739 | 171.11 | 13 48 19 Z | 15 37 Z | 150816 | 154120 | 802 | 432 |
| 2741 | +120.47 | 17 11 53 Z | 17 16 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

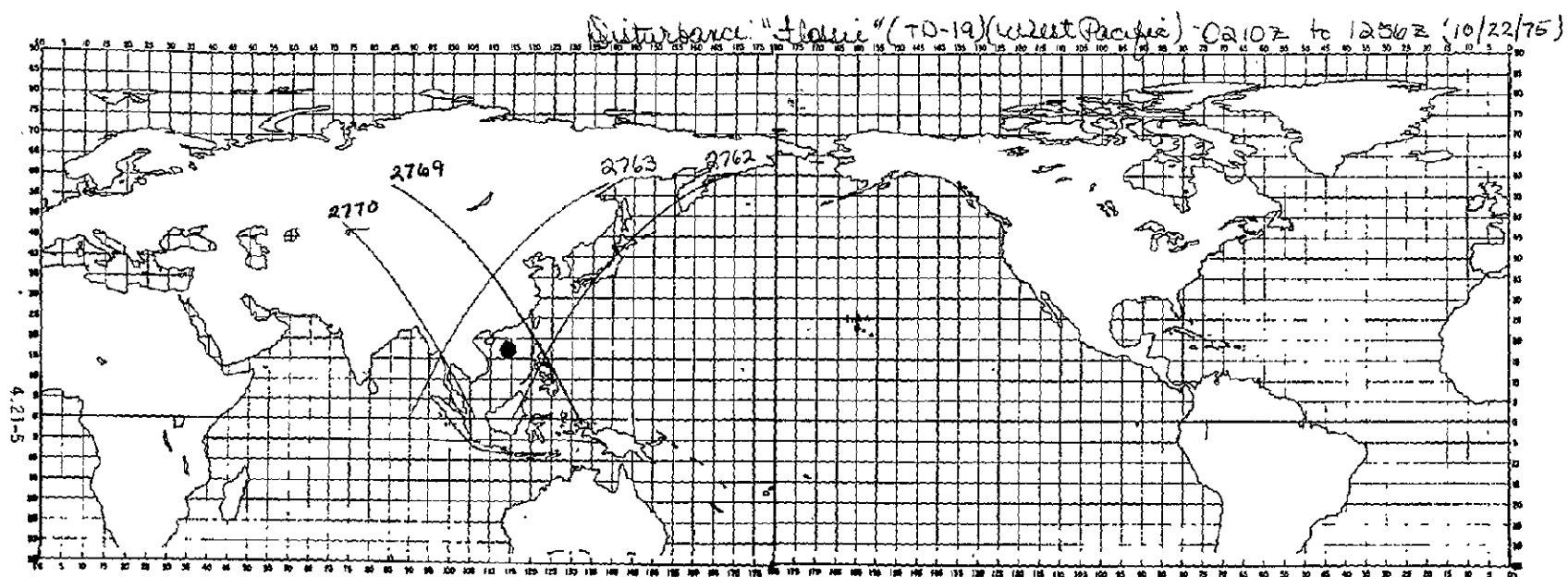
Disturbance: "Glossie" (TD-19) (West Pacific) - 0116Z to 1200Z (10/21/75).



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0116Z | 15.5N | 116.2E |
| 1200Z | 16.8N | 115.3E |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2748 | -56.80 | 05 04 23 Z | 05 50 Z | No | | | |
| 2749 | -82.12 | 06 46 10 Z | 07 30 Z | No | | | |
| 2754 | +151.27 | 15 15 05 Z | 15 23 Z | No | | | |
| 2755 | +125.94 | 16 56 53 Z | 17 02 Z | No | | | |
| 2756 | +100.61 | 18 38 40 Z | 18 40 Z | No | | | |
| | | | | | | | |

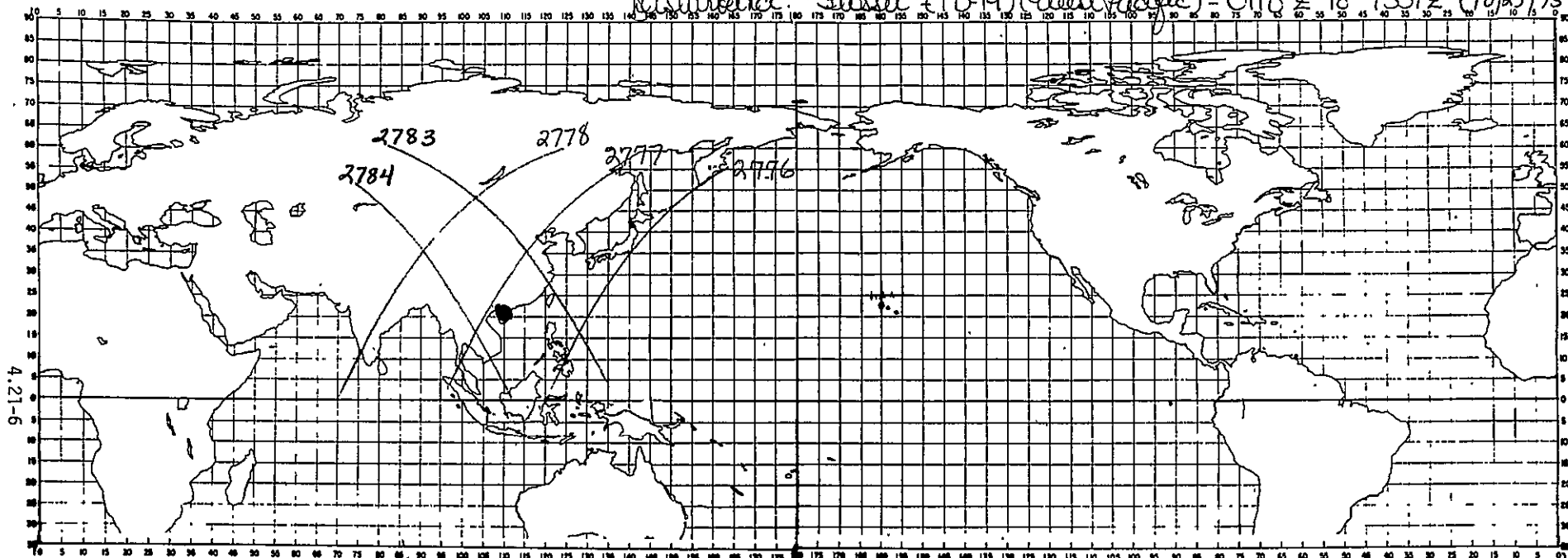


LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0210Z | 17.8N | 115.2E |
| 1250Z | 19.1N | 113.2E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2762 | -51.32 | 04 49 22 Z | 05 36 Z | Do | | | |
| 2763 | -76.65 | 06 31 09 Z | 07 15 Z | Do | | | |
| 2769 | +131.41 | 16 41 52 Z | 16 48 Z | Do | | | |
| 2770 | +106.09 | 18 23 39 Z | 18 28 Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

Disturbance: "Glossi" (TD-19) (West Pacific) - 0110Z to 1351Z (10/23/75)



LOCATION

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0110Z | 20.0N | 111.5E |
| 1351Z | 23.0N | 108.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2776 | -45.85 | 04 34 21 Z | 05 20 Z | Do | | | |
| 2777 | -71.17 | 06 16 08 Z | 07 00 Z | Do | | | |
| 2778 | -96.49 | 07 57 55 Z | 08 40 Z | Do | | | |
| 2783 | +136.89 | 16 26 51 Z | 16 35 Z | Do | | | |
| 2784 | +111.57 | 18 08 38 Z | 18 15 Z | Do | | | |
| | | | | | | | |

DISTURBANCE: Tropical Storm Grace

DATE: October 25 - November 2, 1975

| Date | Time GMT | Position * | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|------------|-----------|------------------|---------------|----------------------|
| | | Latitude | Longitude | | | |
| 10/25 | 0000Z | 18.0N | 128.0E | | | Tropical Disturbance |
| 10/26 | 0000Z | 19.0N | 128.5E | | | Tropical Storm |
| 10/27 | 0000Z | 18.5N | 130.0E | | | Tropical Disturbance |
| 10/28 | 0000Z | 18.0N | 132.0E | | | Tropical Depression |
| 10/29 | 0000Z | 17.0N | 128.5E | | | Tropical Depression |
| 10/30 | 0000Z | 18.5N | 129.0E | | | Tropical Storm |
| 10/31 | 0000Z | 22.0N | 133.5E | | | Tropical Storm |
| 11/01 | 0000Z | 24.5N | 133.5E | | | Tropical Storm |

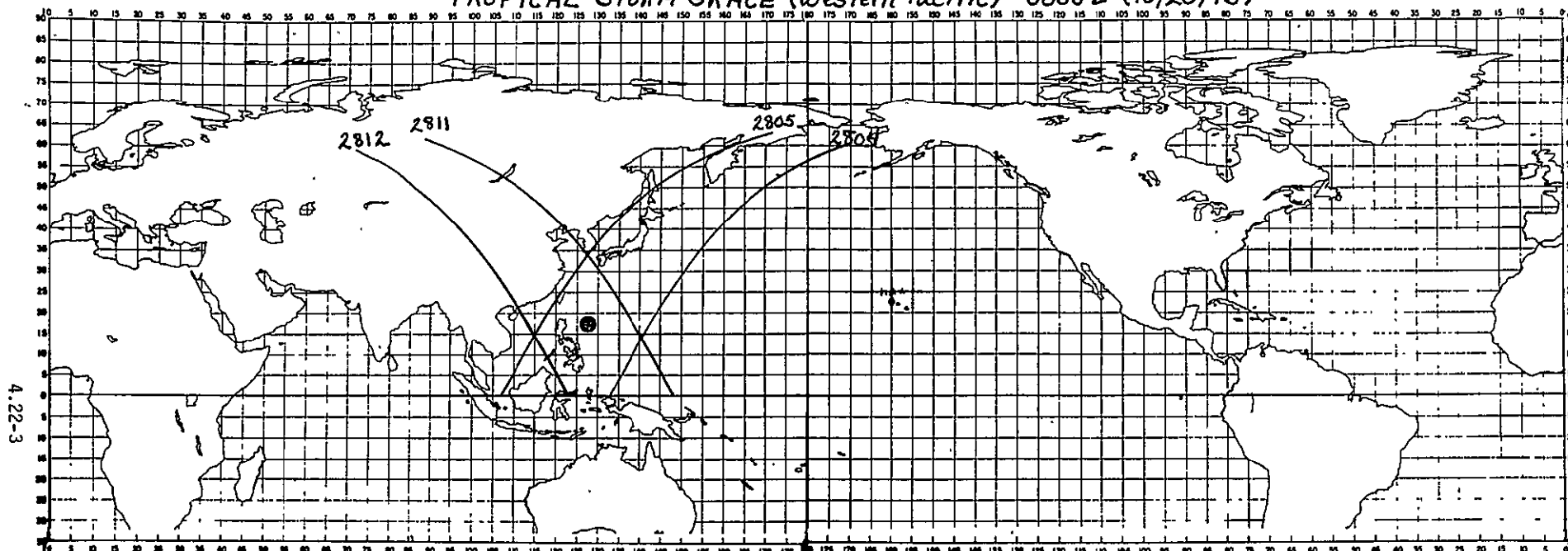
DISTURBANCE: Tropical Storm Grace

DATE: October 25 - November 2, 1975

| Date | Time GMT | Position* | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|-----------|-----------|------------------|---------------|----------------|
| | | Latitude | Longitude | | | |
| 11/02 | 0000Z | 27.0N | 140.5E | | | Tropical Storm |
| | 0600Z | 26.0N | 142.5E | | | Tropical Storm |

* Positions estimated from track map - see page 4.1-5.

TROPICAL STORM GRACE (Western Pacific) - 0000Z (10/25/75)



LOCATION *

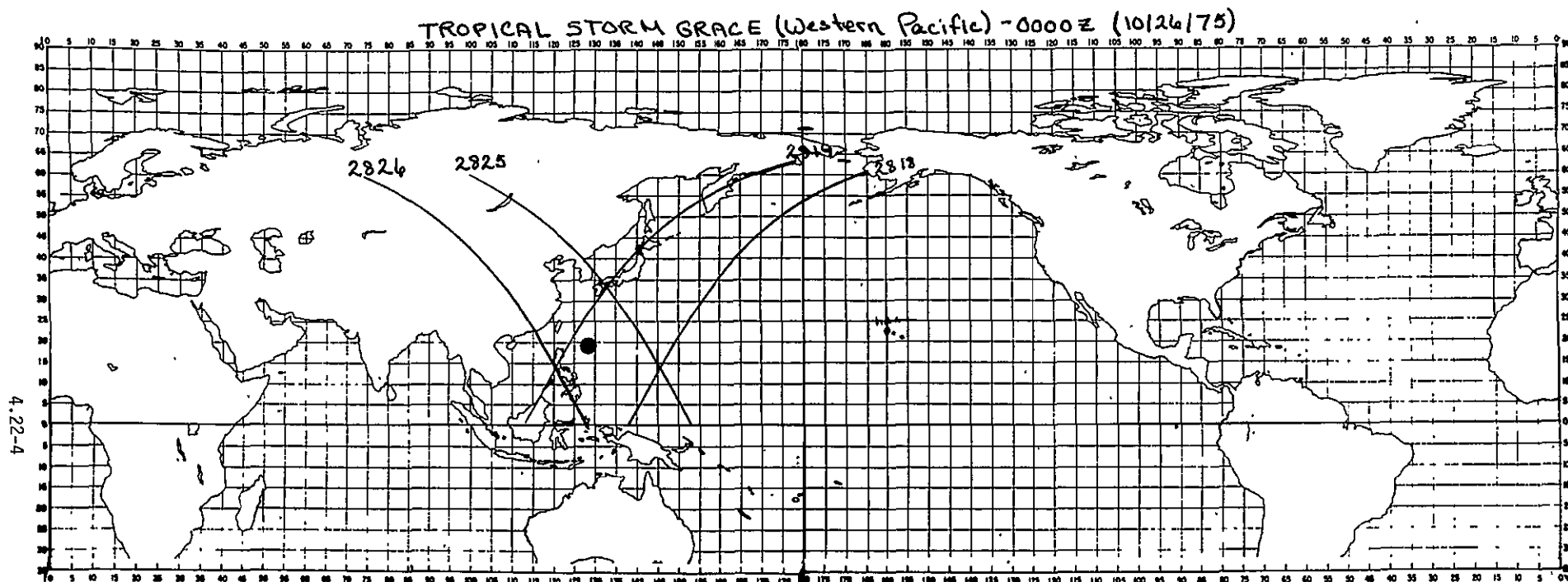
Tropical Disturbance

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 18.0N | 128.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ |
|-------|------------------|--------------------------|-----------------|----|-----|------|------|
| 2804 | -34.90 | 04 04 20 Z | 0450Z | No | | | |
| 2805 | -60.22 | 05 46 07 Z | 0630Z | No | | | |
| 2811 | 147.83 | 15 56 49 Z | 1604Z | No | | | |
| 2812 | 122.51 | 17 38 36 Z | 1741Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.1-5.

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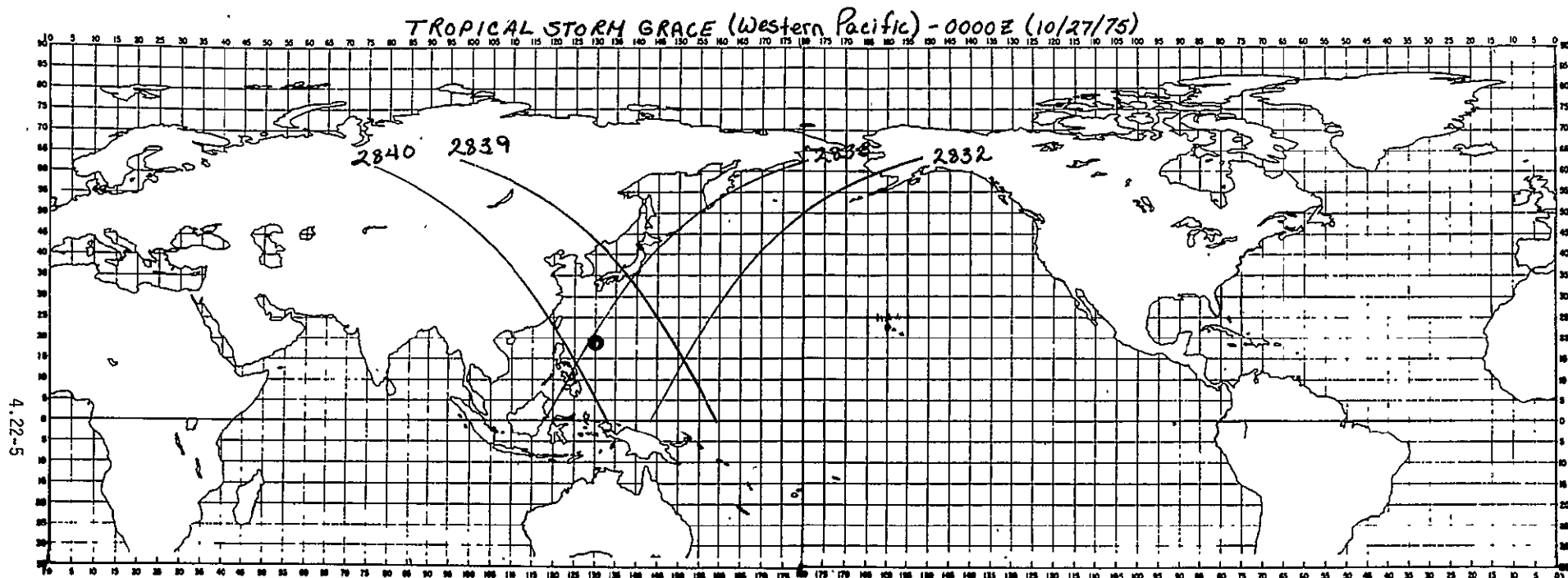
LOCATION*

Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 19.0N | 128.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2818 | -29.42 | 03 49 19 Z | 0436Z | No | | | |
| 2819 | -54.74 | 05 31 06 Z | 0615Z | No | | | |
| 2825 | 153.31 | 15 41 48 Z | 1550Z | No | | | |
| 2826 | 127.99 | 17 23 35 Z | 1728Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - see page 4.1-5.



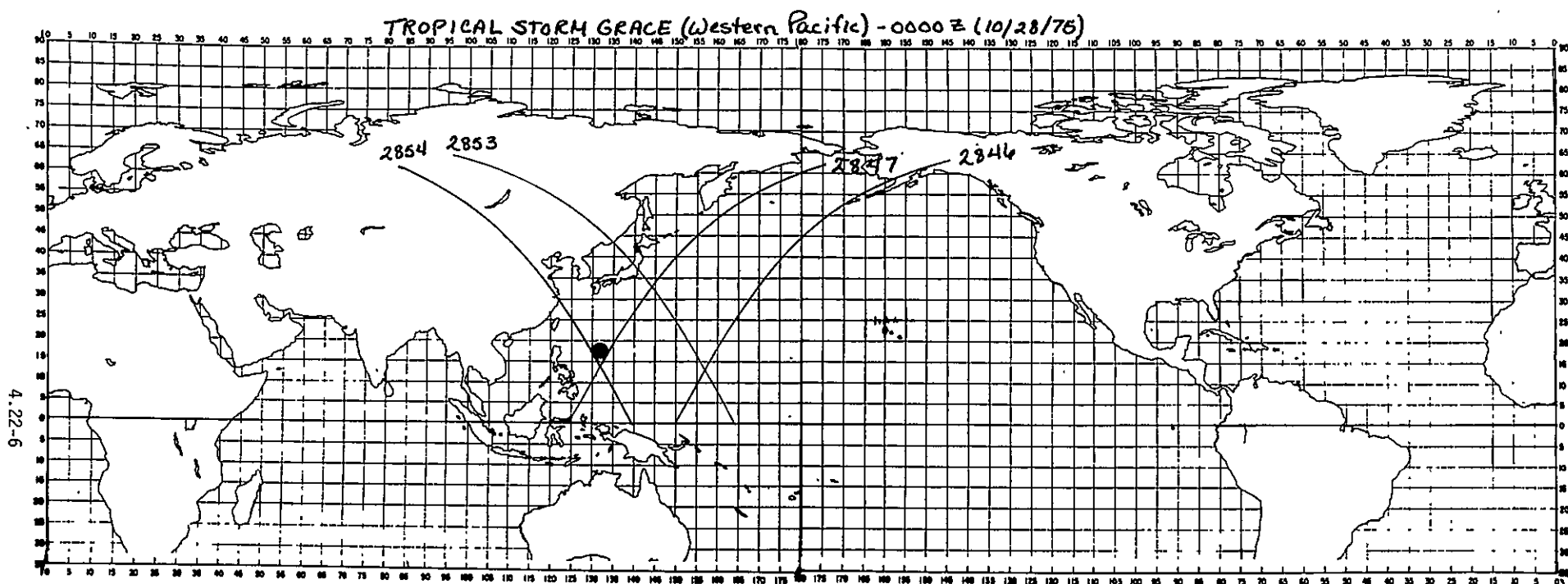
LOCATION*

Tropical Disturbance

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 18.5N | 130.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2832 | -23.95 | 03 34 18Z | 0422Z | 041956 | 043005 | 802 | 482 |
| 2833 | -49.27 | 05 16 05Z | 0601Z | Do | | | |
| 2839 | 158.78 | 15 26 47Z | 1536Z | Do | | | |
| 2840 | 133.46 | 17 08 34Z | 1712Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - see page 4.1-5.



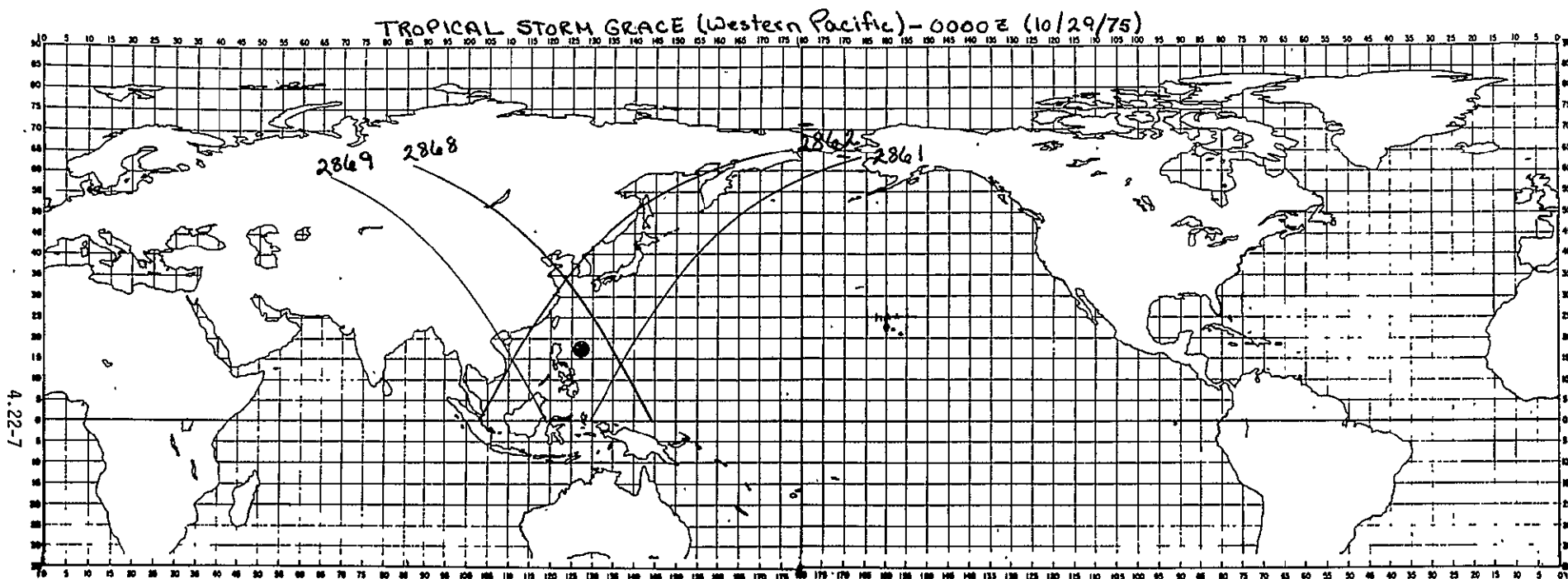
LOCATION*

Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 18.0N | 132.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2846 | -18.47 | 03 19 17 Z | 0407Z | No | | | |
| 2847 | -43.79 | 05 01 04 Z | 0547Z | No | | | |
| 2853 | 164.25 | 15 11 47 Z | 1521Z | No | | | |
| 2854 | 138.93 | 16 53.34 Z | 1659Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - see page 4.1-5.



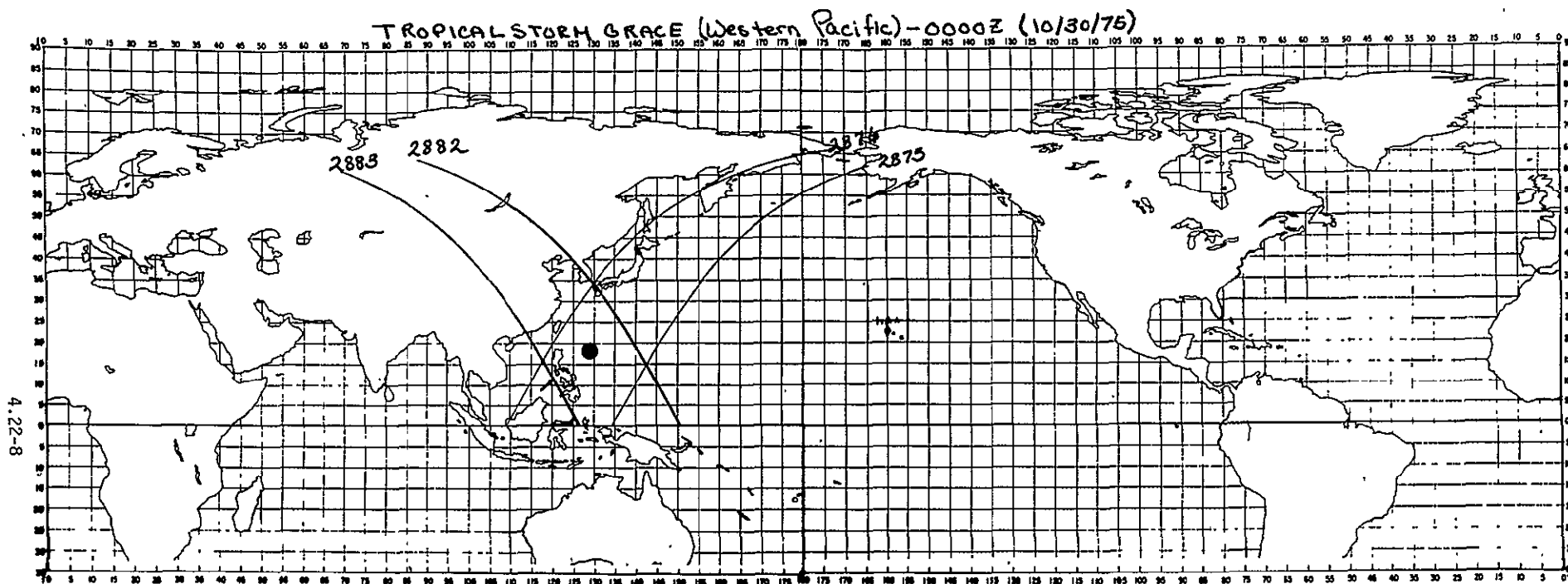
LOCATION*

Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 17.0N | 128.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2861 | -38.32 | 04 46 03 Z | 0533Z | No | | | |
| 2862 | -63.64 | 06 27 50 Z | 0711Z | No | | | |
| 2868 | 144.41 | 16 38 33 Z | 1645Z | No | | | |
| 2869 | 119.08 | 18 20 20 Z | 1822Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - see page 4.1-5.



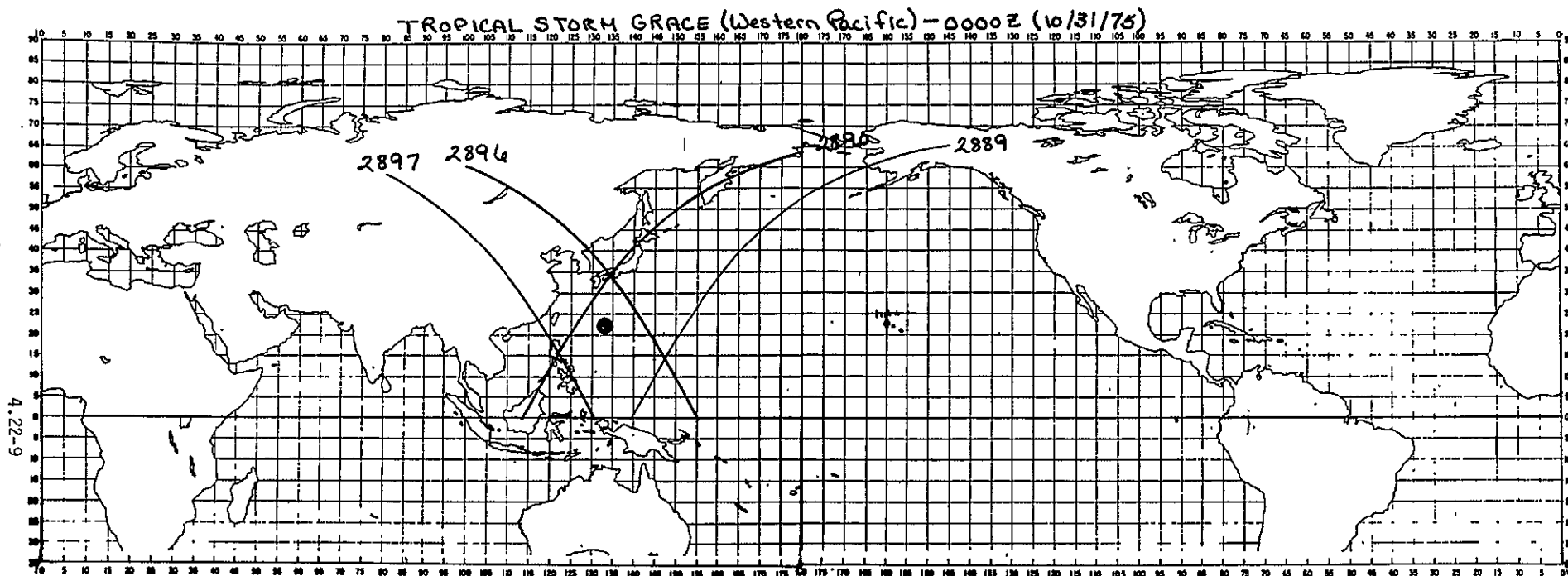
LOCATION*

Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 18.5N | 129.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2875 | -32.84 | 04 31 02 Z | 0517 Z | No | | | |
| 2876 | -58.17 | 06 12 49 Z | 0657 Z | No | | | |
| 2882 | 149.88 | 16 23 32 Z | 1631 Z | No | | | |
| 2883 | 124.56 | 18 05 19 Z | 1809 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - see page 4.1-5.



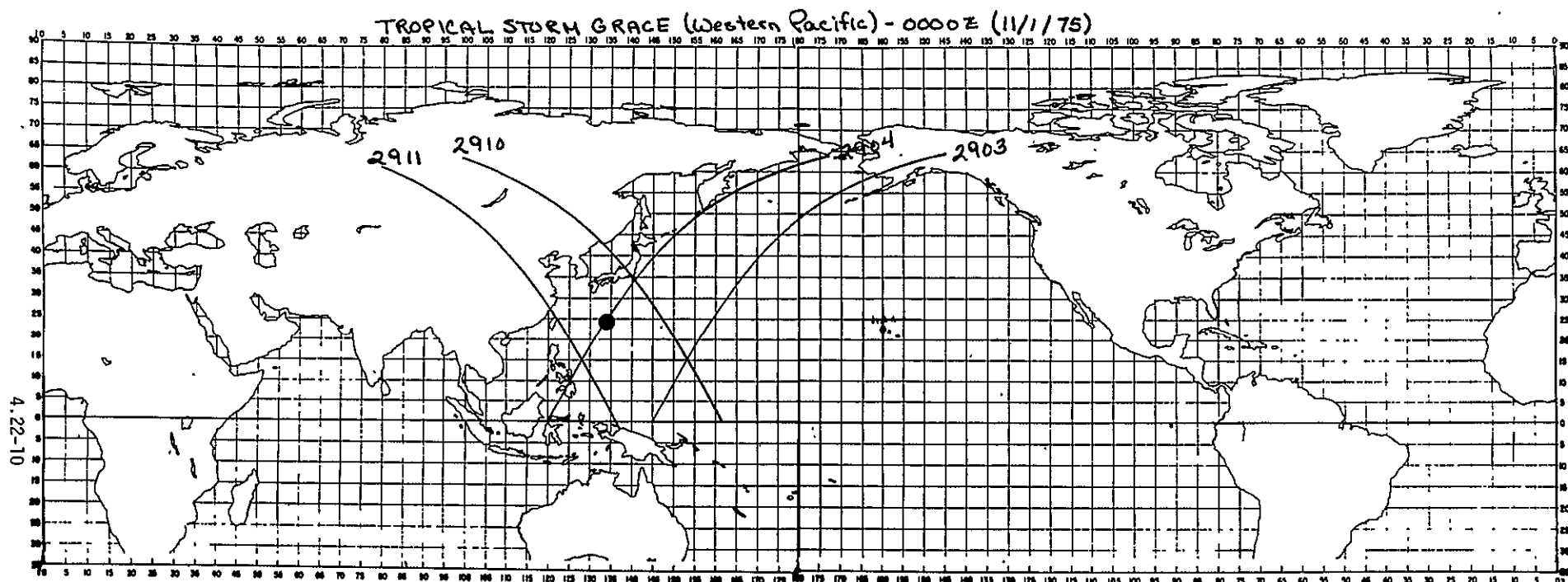
LOCATION *

Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 22.0N | 133.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2889 | -27.57 | 04 16 01 Z | 0502Z | No | | | |
| 2890 | -52.69 | 05 57 48 Z | 0641Z | No | | | |
| 2896 | 155.96 | 16 08 31 Z | 1617Z | No | | | |
| 2897 | 130.04 | 17 50 18 Z | 1754Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - see page 4.1-5.



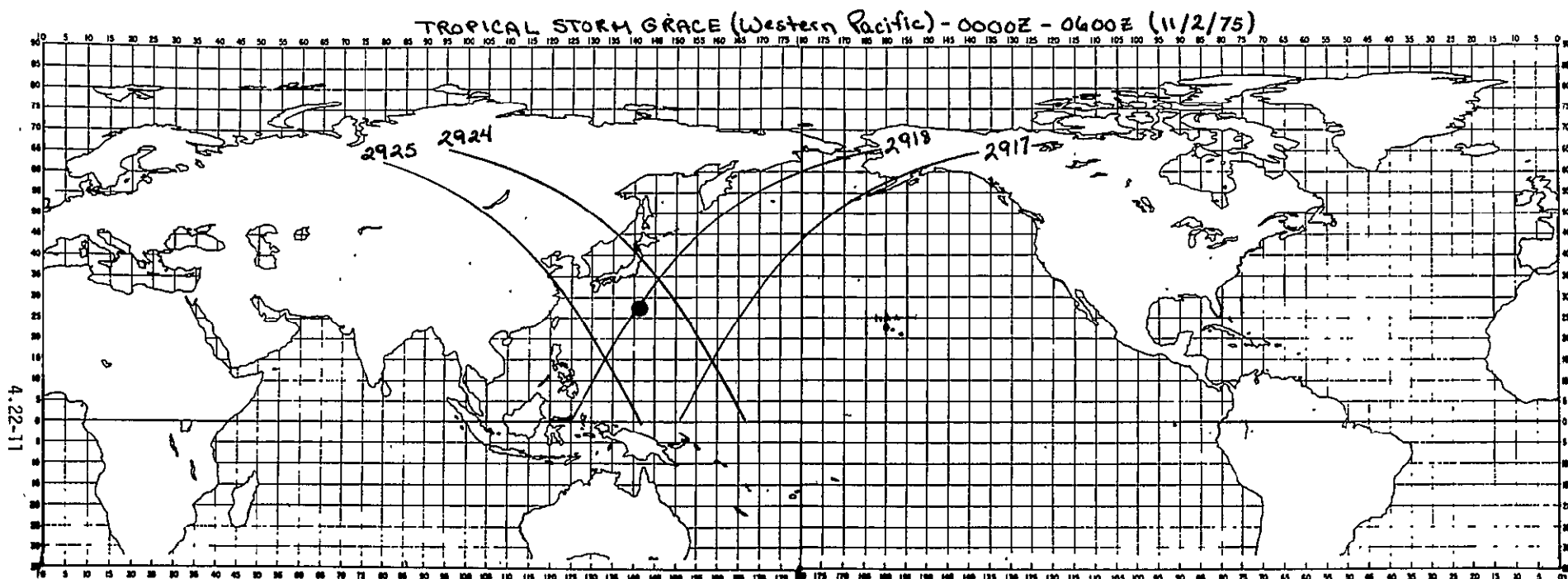
LOCATION*

Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 24.5N | 133.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 2903 | -21.90 | 04 01 01 Z | 04 48 Z | No | | | |
| 2904 | -47.22 | 05 42 48 Z | 06 26 Z | 060918 | 063405 | 802 | 520 |
| 2910 | 160.83 | 15 53.30 Z | 16 03 Z | No | | | |
| 2911 | 135.51 | 17 35 17 Z | 17 41 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - see page 4.1-5.



LOCATION*

Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 27.0N | 140.5E |
| 0600Z | 26.0N | 142.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2917 | -16.42 | 03 46 00 Z | 0432Z | No | | | |
| 2918 | -41.74 | 05 27 47Z | 0612Z | No | | | |
| 2924 | 166.31 | 15 38 29Z | 1548Z | No | | | |
| 2925 | 140.99 | 17 20 16Z | 1726Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - see page 4.1-5.

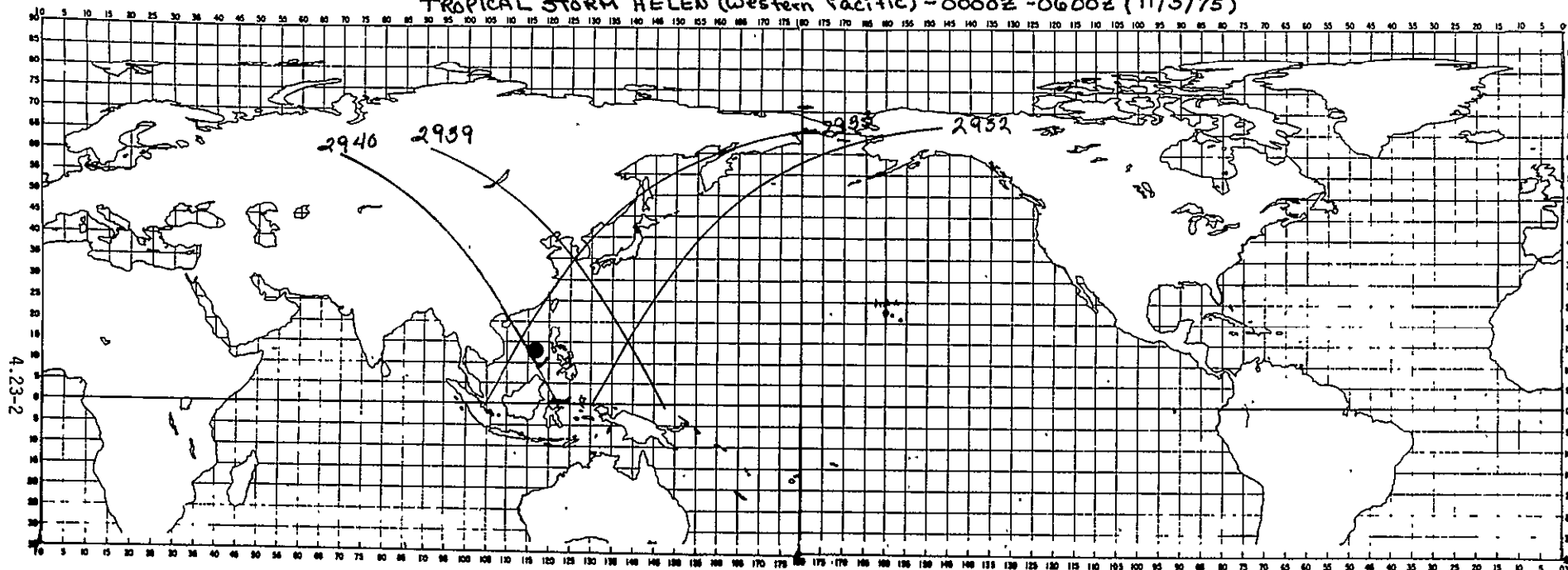
DISTURBANCE: Tropical Storm Helen

DATE: November 3 - November 4, 1975

| Date | Time GMT | Position * | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|------------|-----------|------------------|---------------|---------------------|
| | | Latitude | Longitude | | | |
| 11/03 | 0000Z | 13.5N | 116.0E | | | Tropical Depression |
| | 0600Z | 13.9N | 114.5E | | | Tropical Storm |
| 11/04 | 0000Z | 13.0N | 111.0E | | | Tropical Storm |
| | 1200Z | 13.0N | 108.0E | | | Tropical Depression |

* Positions estimated from track map - see page 4.1-5.

TROPICAL STORM HELEN (Western Pacific) - 0000Z - 0600Z (11/3/75)



LOCATION*

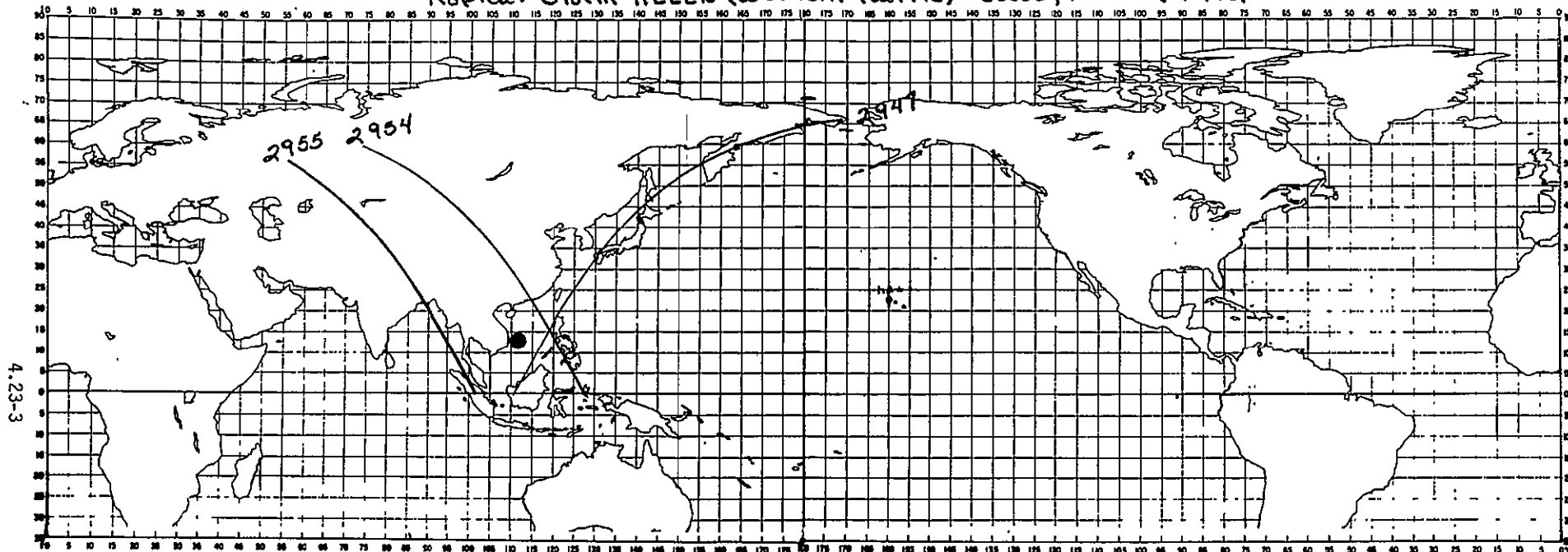
Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 13.5N | 116.0E |
| 0600Z | 13.9N | 114.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2932 | -36.27 | 05 12 46 Z | 0602Z | No | | | |
| 2933 | -61.59 | 06 54 33 Z | 0741Z | No | | | |
| 2939 | 146.46 | 17 05 15 Z | 1713Z | No | | | |
| 2940 | 121.14 | 18 47 02 Z | 1851Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - see Page 4.1-5.

Tropical Storm HELEN (Western Pacific) - 0000Z, 1200Z (11/4/75)



LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 13.0N | 111.0E |
| 1200Z | 13.0N | 108.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2947 | -56.12 | 06 39 32 Z | 0727Z | No | | | |
| 2954 | 126.61 | 18 32 01 Z | 1837Z | No | | | |
| 2955 | 101.29 | 20 13 49 Z | 2016Z | No | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - see page 4.1-5.

TYPHOON IDA

(6 November - 11 November, 1975)

Meteorological History/Data

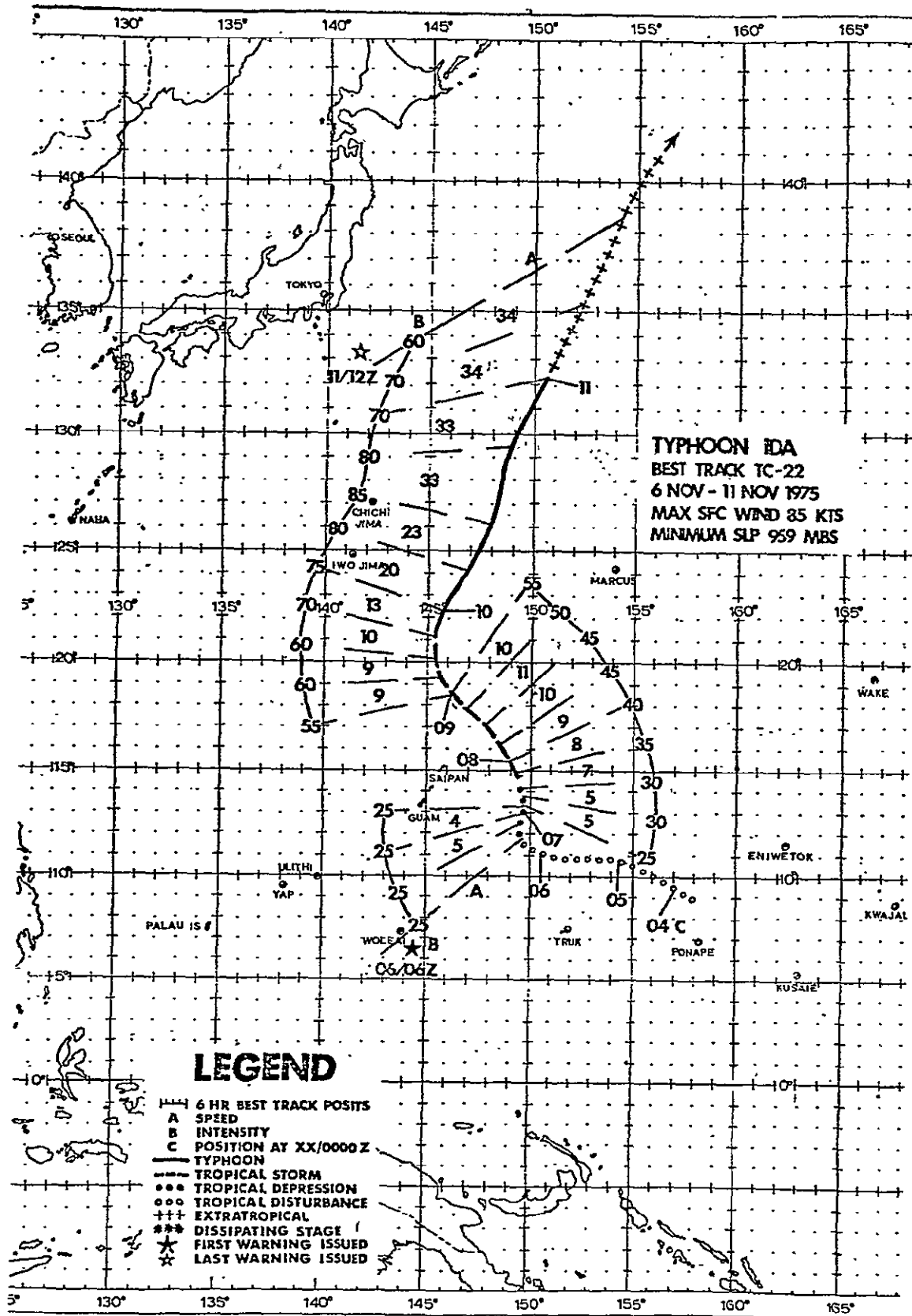
Destined to spend its entire life cycle at sea, Typhoon Ida was first observed as a tropical disturbance on the 4th of November, 150 nm northwest of Ponape. The disturbance initially moved westward at 8 knots with dual circulation centers oriented along a northeast to southwest axis. The disturbance became a tropical depression at 0600Z on the 6th and then began moving toward the north through a weakness in the midtropospheric subtropical ridge. The depression continued to move north at 4-5 knots for the next 24 hours while the two circulation centers consolidated into one.

Early on the morning of the 8th, the depression was upgraded to Tropical Storm Ida and it accelerated toward the northwest at 10 knots. Ida continued to intensify as the center passed near the Southern Mariana Islands, with wind gusts of 32 knots reported on Guam on the 7th. On the 9th Pagan Island in the Northern Marianas reported 40-knot winds.

By the 9th, Ida had come under the influence of a deep mid-latitude trough centered 600 nm to the west and began to re-curve. The storm attained typhoon intensity by 1800Z on the 9th and began tracking toward the north-northeast at an accelerated rate. A minimum central pressure of 959 mb was observed by aircraft reconnaissance at 1437Z on the 10th. By 0000Z on the 11th, Ida was moving toward the north-northeast at 33 knots and had lost much of her tropical cyclone characteristics as evidenced by satellite data. Twelve hours later, Ida had combined with a frontal system and continued to move rapidly northeastward as an extratropical system.

Damage Estimates

Unknown.

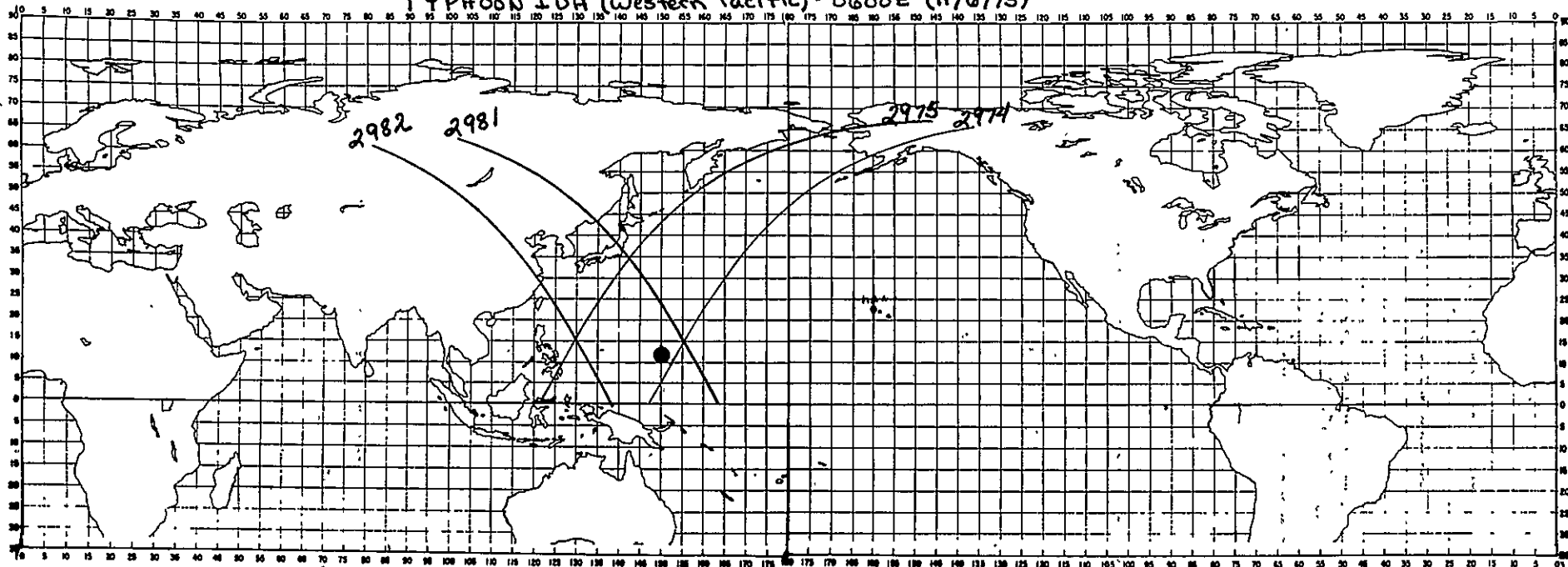


DISTURBANCE: Typhoon Ida
 DATE: November 6 - 11, 1975

| Date | Time GMT | Position* | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|-----------|-----------|------------------|---------------|---------------------|
| | | Latitude | Longitude | | | |
| 11/6 | 0600Z | 11.0N | 150.0E | | | Tropical Depression |
| 11/7 | 0600Z | 13.5N | 149.5E | | | |
| 11/8 | 0600Z | 15.0N | 149.0E | | | Tropical Storm |
| 11/9 | 1800Z | 21.0N | 146.0E | | | Typhoon |
| 11/10 | 1437Z | 27.0N | 148.0N | 959 | | |
| 11/11 | 1200Z | 37.0N | 153.0E | | | Extratropical |

* Position estimated from track map, page 4.24-2.

4.24-4

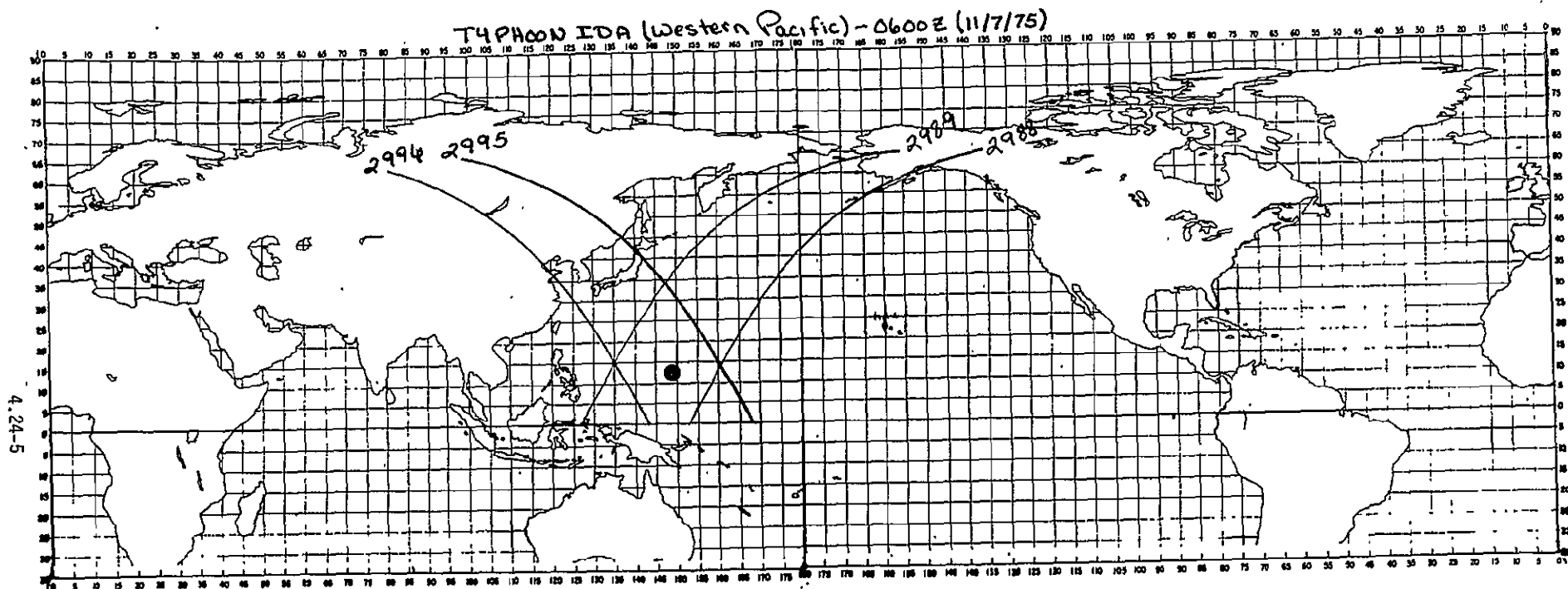


Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 11.0 N | 150.0 E |
| | | |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2974 | -19.84 | 04 27 43 Z | 0516 Z | No | | | |
| 2975 | -45.17 | 06 09 30 Z | 0654 Z | No | | | |
| 2981 | 162.88 | 16 20 13 Z | 1625 Z | No | | | |
| 2982 | 137.56 | 18 02 00 Z | 1804 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map, page 4.24-2.



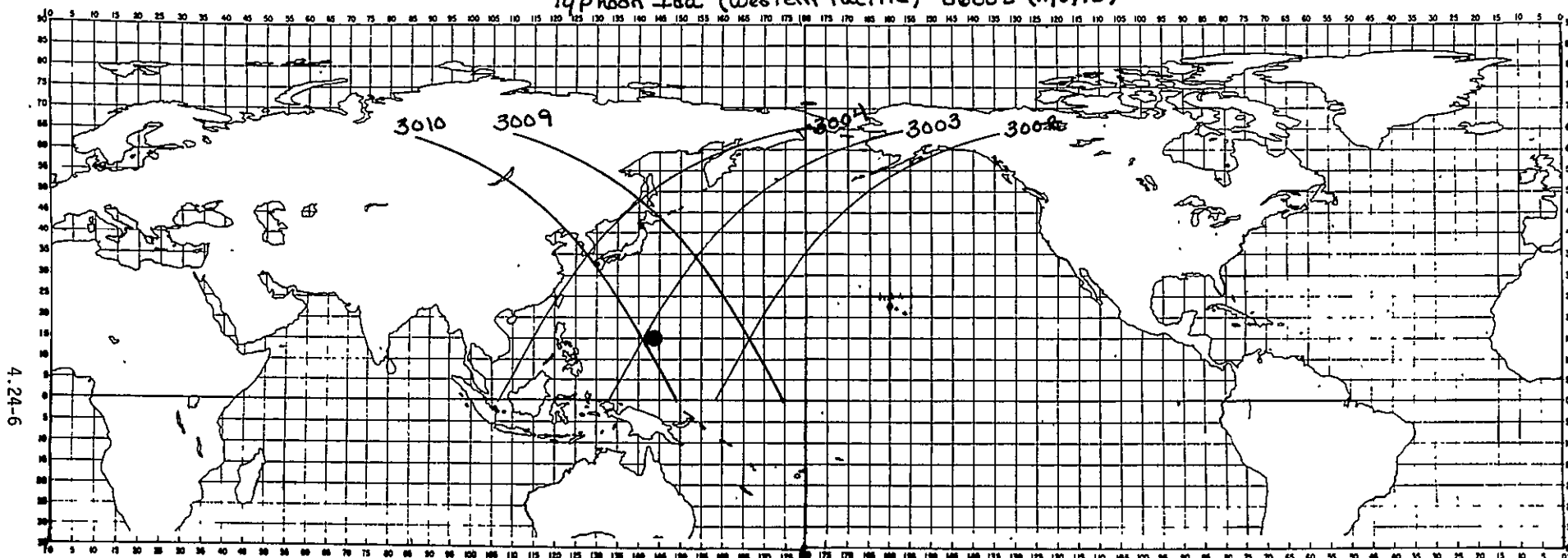
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 13.5N | 149.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 2988 | -14.37 | 04 12 42 Z | 0501Z | No | | | |
| 2989 | -39.69 | 05 54 29 Z | 0639Z | No | | | |
| 2995 | 148.36 | 16 05 12 Z | 1610Z | No | | | |
| 2996 | 143.03 | 17 46 59 Z | 1749Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map, page 4.24-2.

Typhoon Ida (Western Pacific) - 0600Z (11/8/75)



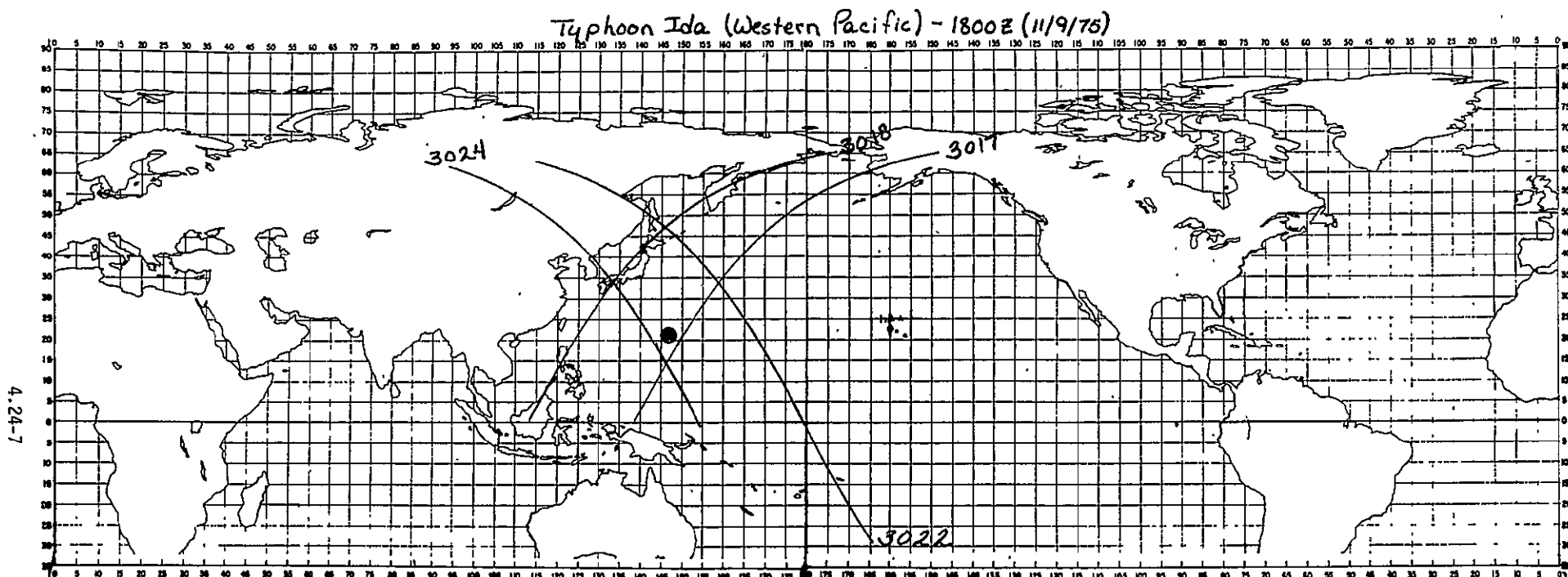
LOCATION*

Tropical Storm

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 15.0N | 149.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3002 | - 8.89 | 03 57 41 Z | 0446 Z | No | | | |
| 3003 | -34.22 | 05 39 28 Z | 0625 Z | No | | | |
| 3004 | -59.54 | 07 21 15 Z | 0802 Z | No | | | |
| 3009 | 173.83 | 15 50 11 Z | 1558 Z | No | | | |
| 3010 | 148.51 | 17 31 58 Z | 1736 Z | No | | | |

* Position estimated from track map - page 4.24-2.



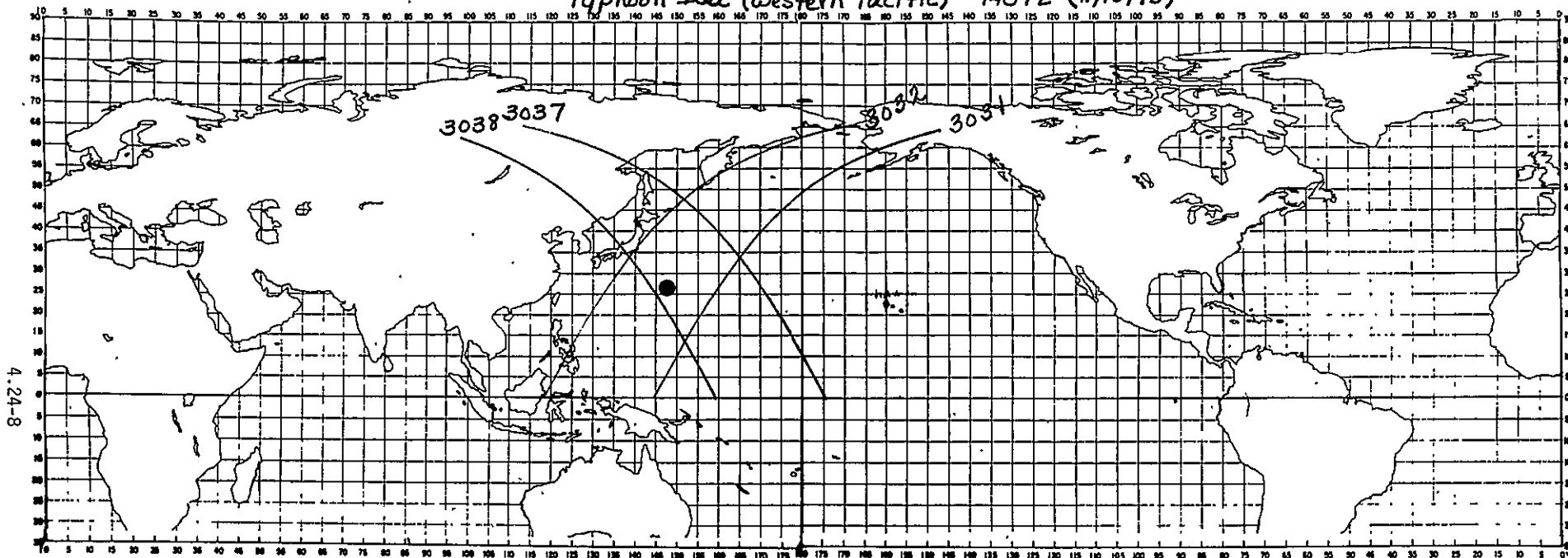
LOCATION*
Typhoon

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1800Z | 21.0N | 146.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 3017 | -28.74 | 05 24 27 Z | 0609Z | No | | | |
| 3018 | -54.07 | 07 06 15 Z | 0747Z | No | | | |
| 3022 | -155.36 | 13 53 23 | 1545Z | 152151 | 153206 | 802 | 584 |
| 3024 | 153.98 | 17 16 57 Z | 1723Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map, page 4.24-2.

Typhoon Ida (Western Pacific) - 1437Z (11/10/75)



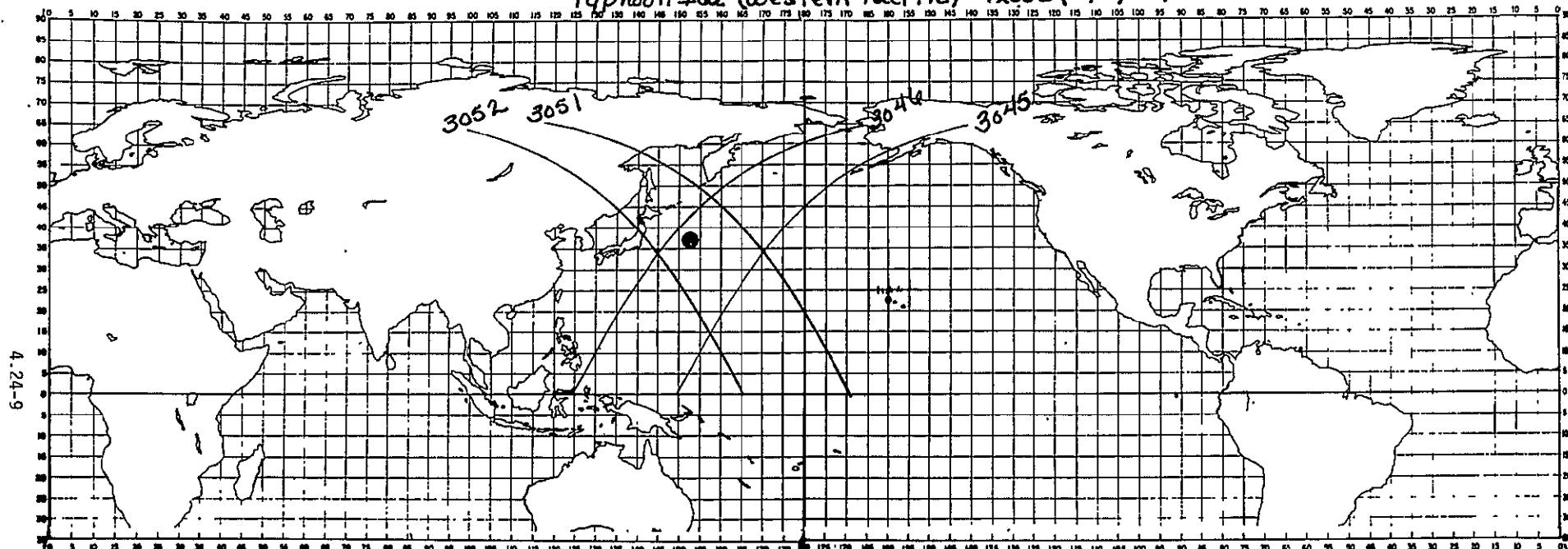
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1437Z | 27.0N | 148.0N |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3031 | -23.27 | 05 09 27 Z | 0553Z | No | | | |
| 3032 | -48.59 | 06 51 14 Z | 0732Z | No | | | |
| 3037 | -175.20 | 15 20 08 Z | 1532Z | No | | | |
| 3038 | 159.47 | 17 01 55 Z | 1710Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.24-2.

Typhoon Ida (Western Pacific) - 1200Z (11/11/75)



LOCATION*

Extratropical

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 1200Z | 37.0N | 153.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3045 | -17.78 | 04 54 24 Z | 0537Z | No | | | |
| 3046 | -43.11 | 06 36 12 Z | 0715Z | No | | | |
| 3051 | -169.72 | 15 05 07 Z | 1519Z | No | | | |
| 3052 | 164.94 | 16 46 54 Z | 1657Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.24-2.

TYPHOON JUNE

(16 November - 24 November, 1975)

Meteorological History/Data

The last typhoon of the year was to become the most intensive on record. At 0843Z on 19 November, reconnaissance aircraft measured a record low 700 mb height of 1984 m while traversing the eye and obtained a coincident minimum sea level pressure (MSLP) of 876 mb (25.87 in) by dropsonde near the cloud wall. This observation was the lowest on record, slightly lower (1 mb) than Typhoons Ida in 1958 and Nora in 1973. June's central pressure well surpasses the lowest Western Hemisphere reading (892.3 mb), and that obtained by aircraft in Hurricane Camille (905 mb).

June had been under frequent surveillance by satellite and aircraft since her birth in the central Carolines on the 16th. Initially, the system moved slowly westward, becoming quasi-stationary near 6N 143E (445 nm south of Guam), the result of weak steering flow near the equator.

On the 18th, June began to move northward, perhaps in response to a weakness in the 500 mb ridge caused by a deep trough approaching from the west. Simultaneously, June began to rapidly deepen, her surface pressure plummeting 52 mb in 11 hours and 90 mb in 24 hours. By the 19th, the winds of Super Typhoon June had increased to an estimated 160 knots as the typhoon reached its lowest pressure, some 230 nm west-southwest of Guam. As June tracked north-northwest toward a weakness in the 500 mb ridge, the system reached exceptionally large proportions. Sustained surface winds of 50 knots or greater extended 200 nm outward from the center.

After passing abeam of Guam, Super Typhoon June turned northwest. On the 22nd, June began recurving toward northeast with maximum winds down to 115 knots. On the 23rd, the storm began accelerating rapidly in the strong westerlies and its forward speed reached nearly 60 knots with an influx of cold air. June became extratropical above 30N, still possessing winds of typhoon intensity.

Damage Estimates

On the evening of the 19th, June passed approximately 200 nm to the west of Guam. More than 3,200 island residents fled into evacuation centers. There was severe flooding in low-lying areas, with several buildings and homes damaged or destroyed by gale force winds and storm surge. A peak gust of 70 knots was recorded at Andersen AFB. Island losses amounted to an estimated \$300,000 with most of the damage to crops.

Eauripik Atoll in Tap district suffered severe property and crop damage. Newspaper reports stated that "sizable portions" of the island were washed into the heavy seas, but that no deaths or injuries occurred. Flooding and crop damage were also reported on Woleai Atoll and on other low-lying islands in Yap district; however, no casualties were reported on any of the islands.

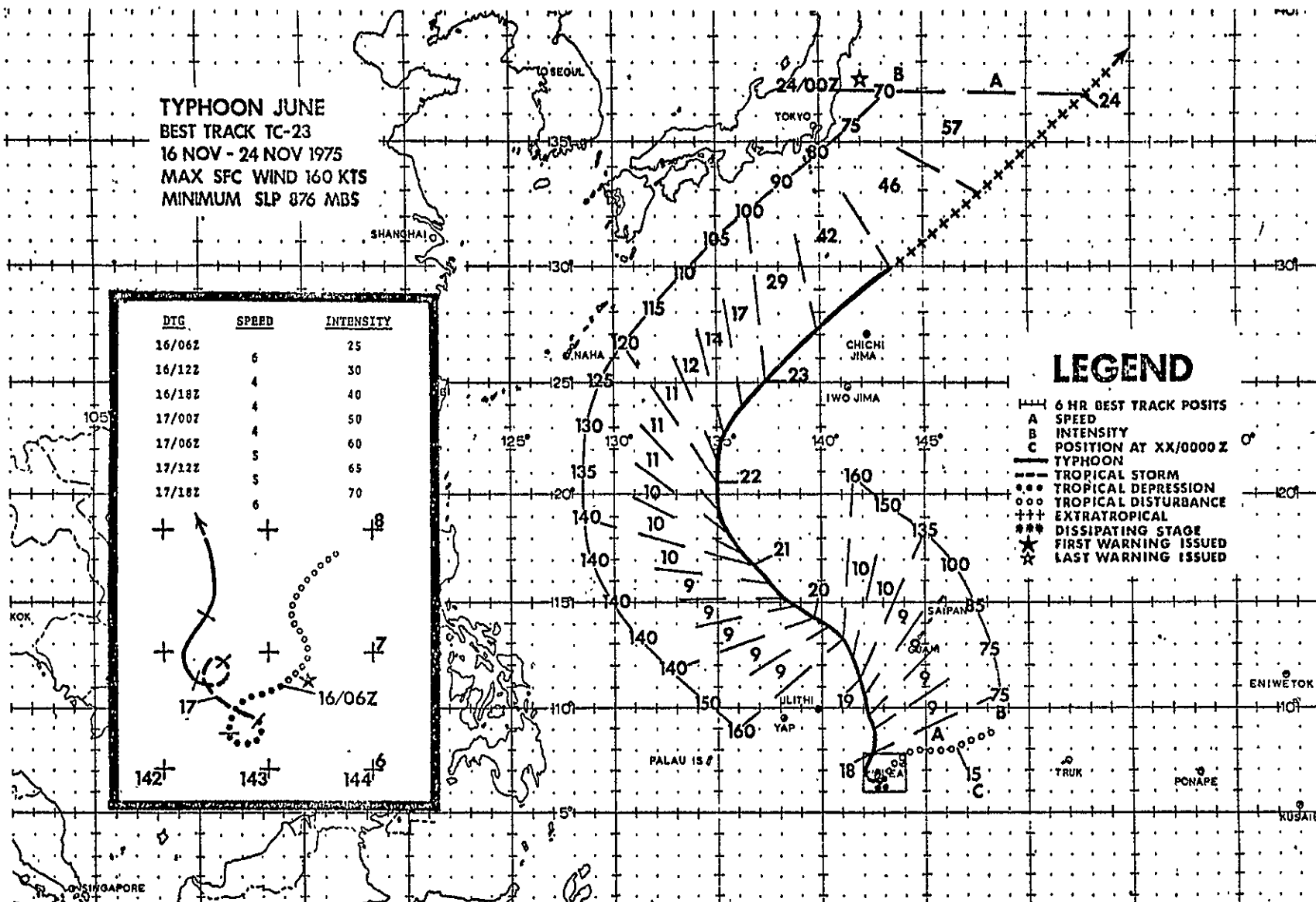
TYPHOON JUNE
BEST TRACK TC-23
16 NOV - 24 NOV 1975
MAX SFC WIND 160 KTS
MINIMUM SLP 876 MBS

| DTG | SPEED | INTENSITY |
|--------|-------|-----------|
| 16/06Z | 6 | 25 |
| 16/12Z | 4 | 30 |
| 16/18Z | 4 | 40 |
| 17/00Z | 4 | 50 |
| 17/06Z | 4 | 60 |
| 17/12Z | 5 | 65 |
| 17/18Z | 5 | 70 |

LEGEND

- 6 HR BEST TRACK POSITS
- A SPEED
- B INTENSITY
- C POSITION AT XX/0000 Z
- TYPHOON
- TROPICAL STORM
- TROPICAL DEPRESSION
- TROPICAL DISTURBANCE
- EXTRATROPICAL
- DISSIPATING STAGE
- FIRST WARNING ISSUED
- LAST WARNING ISSUED

4.25-2



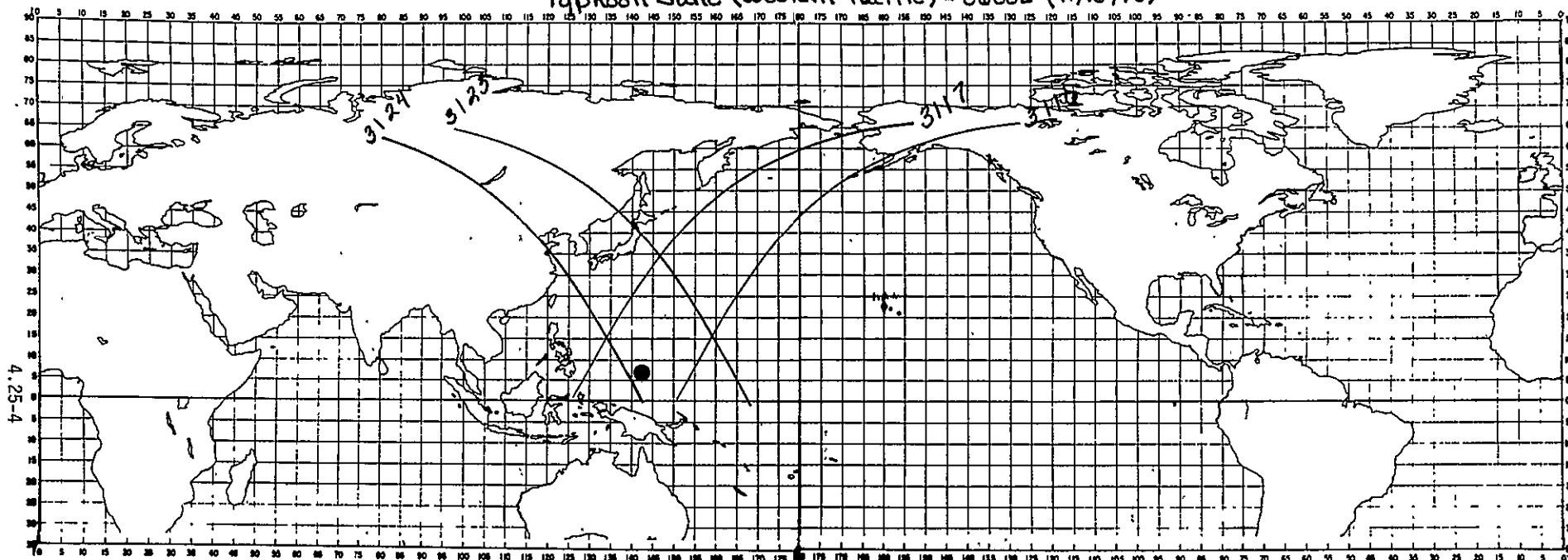
DISTURBANCE: Typhoon June

DATE: 16 November - 24 November, 1975

| Date | Time GMT | Position* | | Pressure (MB) | Wind (KTS) | Stage |
|-------|----------|-----------|-----------|---------------|------------|---------------|
| | | Latitude | Longitude | | | |
| 11/16 | 0600Z | 6.5N | 143.0E | | | |
| 11/17 | 0600Z | 6.8N | 142.5E | | | |
| 11/18 | 0600Z | 9.0N | 142.5E | | | |
| 11/19 | 0843Z | 12.5N | 141.5E | 700 | 160 | Super Typhoon |
| 11/20 | 0600Z | 15.0N | 138.5E | | | |
| 11/21 | 0600Z | 17.5N | 136.0E | | | |
| 11/22 | 0600Z | 21.0N | 135.0E | | | |
| 11/23 | 0600Z | 27.0N | 140.0E | | | Extratropical |

* Position estimated from track map page 4.25-2
4.25-3

Typhoon June (Western Pacific) - 0600Z (11/16/75)



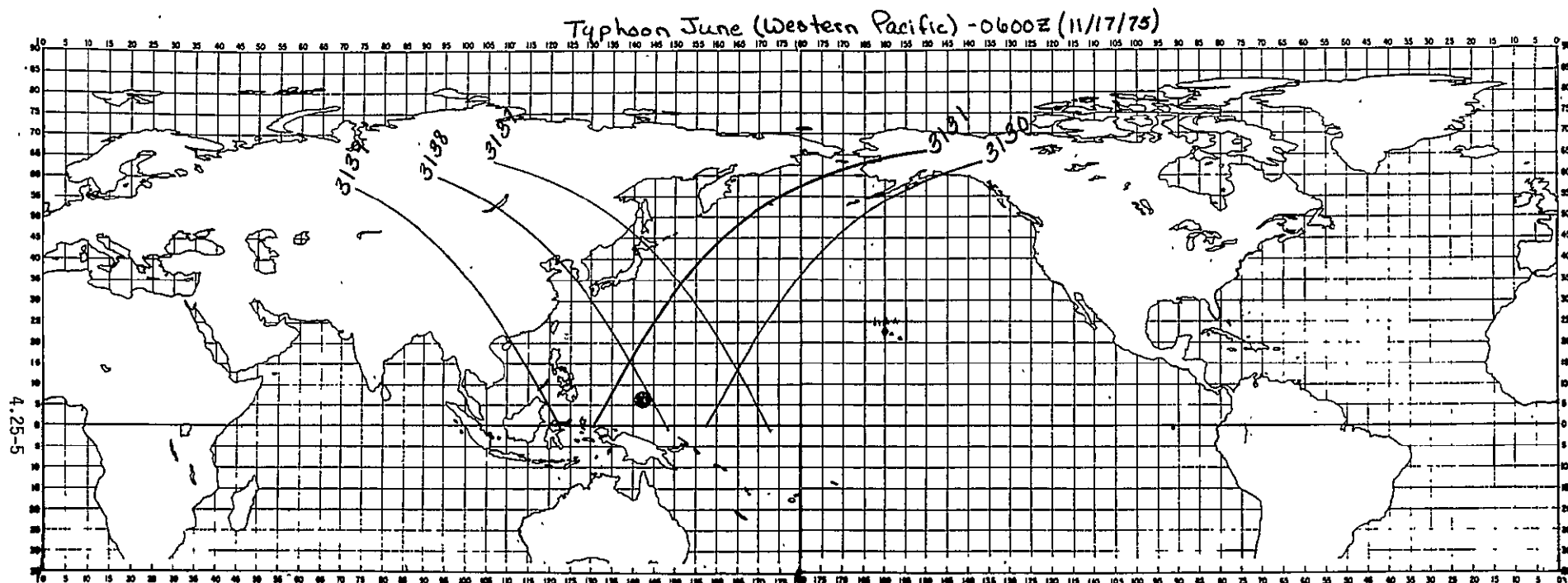
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 6.5N | 143.0E |
| | | |
| | | |
| | | |
| | | |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3116 | -15.73 | 05 21 07 Z | 0611Z | No | | | |
| 3117 | -41.06 | 07 02 54 Z | 0750Z | No | | | |
| 3123 | 167.00 | 17 13 36 Z | 1719Z | Do | | | |
| 3124 | 141.67 | 18 55 23 Z | 1857Z | Do | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map, page 4.25-2.

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR



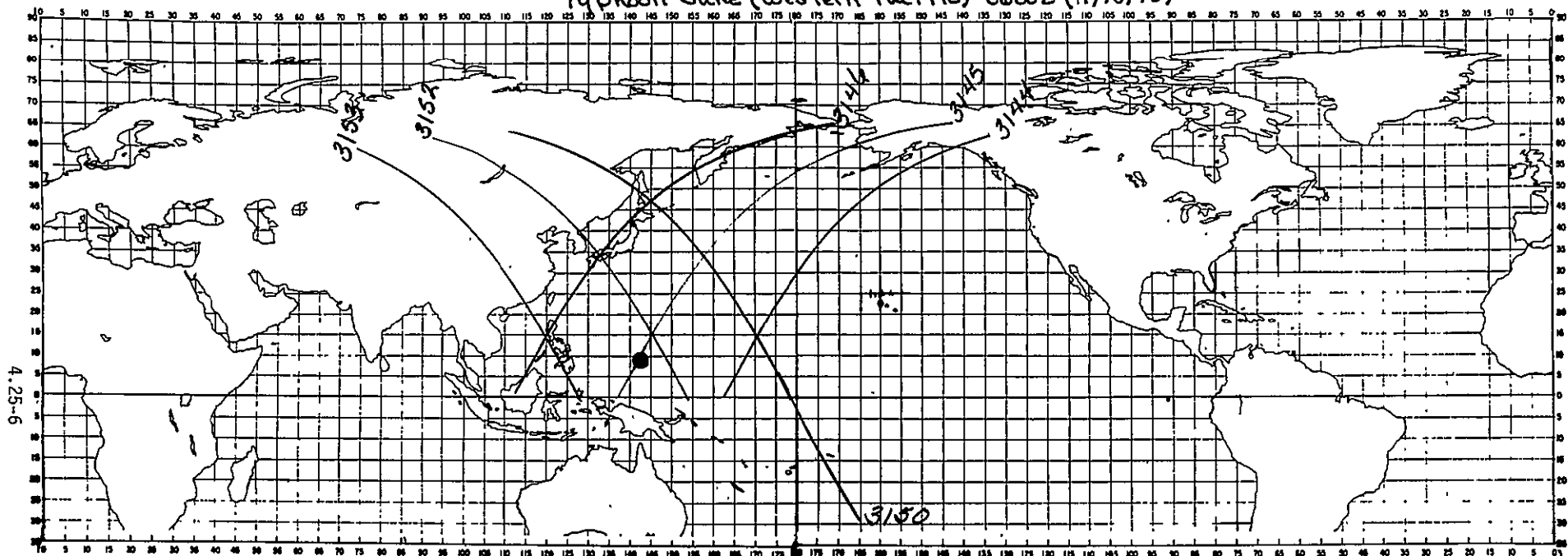
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 6.8N | 142.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3130 | -10.26 | 05 06 06 Z | 0557Z | No | | | |
| 3131 | -35.58 | 06 47 53 Z | 0736Z | No | | | |
| 3137 | 172.47 | 16 58 36 Z | 1706Z | No | | | |
| 3138 | 147.15 | 18 40 23 Z | 1842Z | No | | | |
| 3139 | 121.82 | 20 22 10 Z | 2022Z | No | | | |

* Position estimated from track map - page 4.25-2.

Typhoon June (Western Pacific)-0600Z (11/18/76)



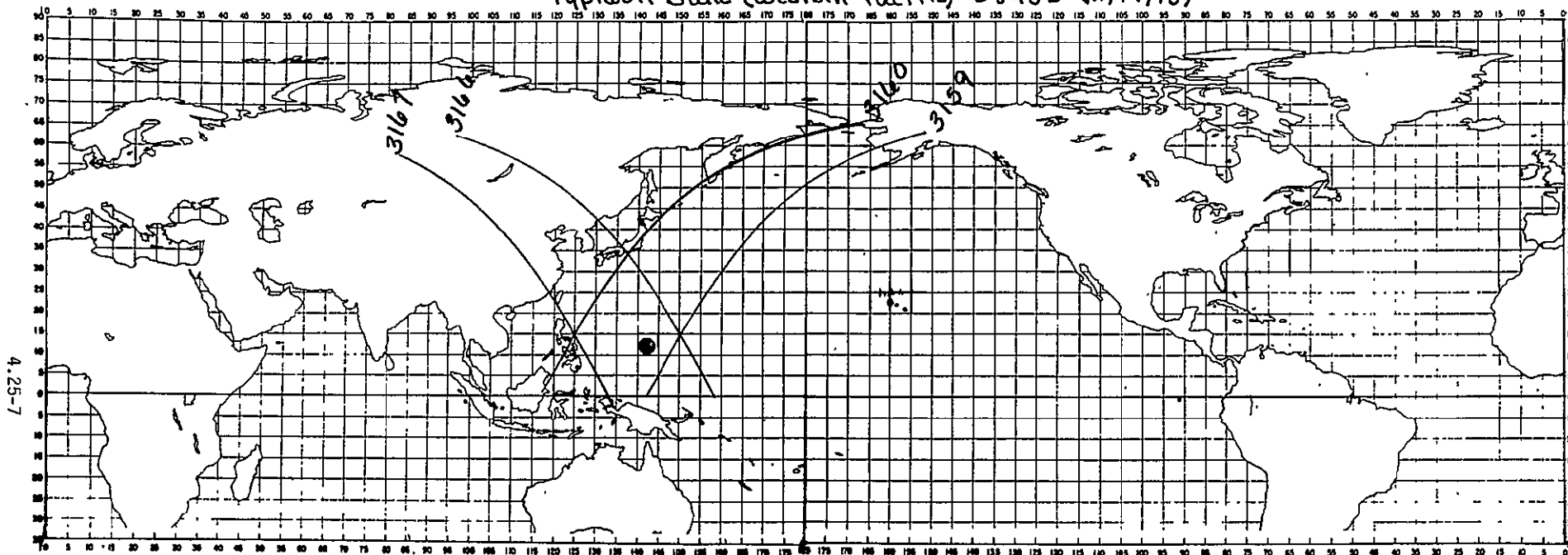
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 9.0N | 142.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|--------|--------|------|--------|
| 3144 | - 4.78 | 04 51 06 Z | 0542Z | No | | | |
| 3145 | -30.11 | 06 32 53 Z | 0721Z | No | | | |
| 3146 | -55.43 | 08 14 40 Z | 0900Z | No | | | |
| 3150 | -156.72 | 15 01 48 Z | 1653Z | 163008 | 165621 | 802 | 658 |
| 3152 | 152.63 | 18 25 22 Z | 1828Z | No | | | |
| 3153 | 127.30 | 20 07 10 Z | 2007Z | No | | | |

* Position estimated from track map-page 4.25-2.

Typhoon June (Western Pacific)-0843Z (11/19/76)



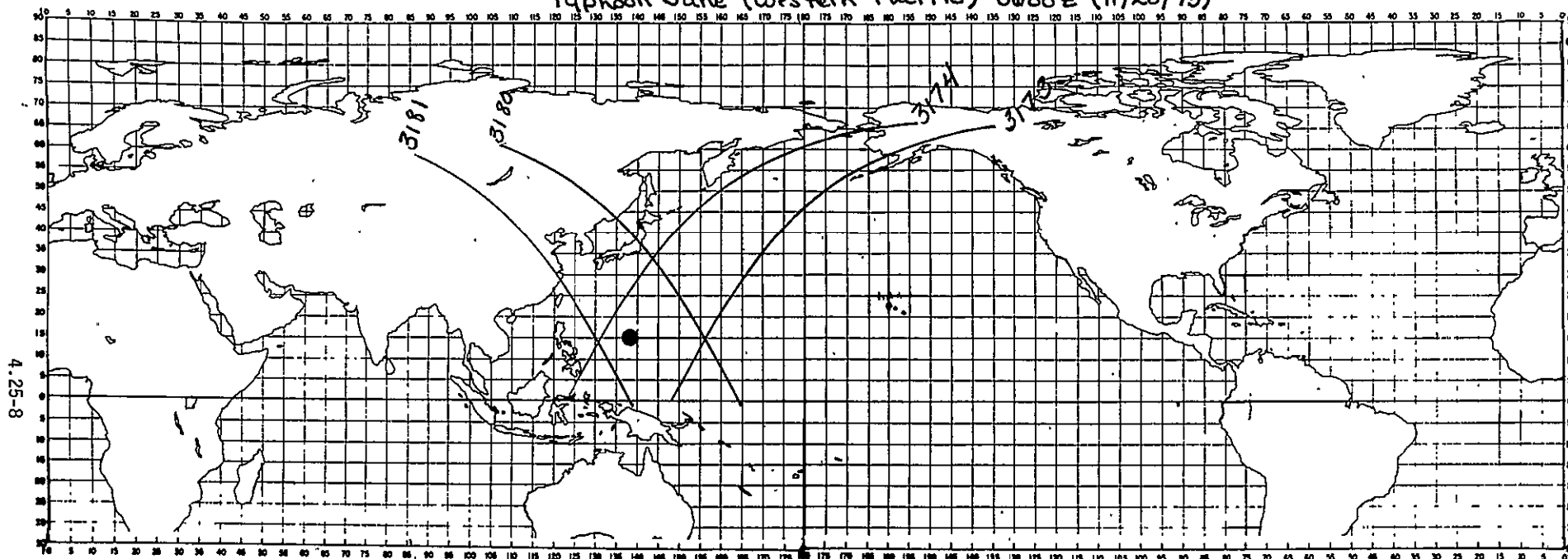
LOCATION*
Super Typhoon

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0843Z | 12.5N | 141.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3159 | -24.63 | 06 17 52 Z | 07 06 Z | No | | | |
| 3160 | -19.95 | 07 59 39 Z | 08 45 Z | No | | | |
| 3166 | 158.09 | 18 10 22 Z | 18 15 Z | No | | | |
| 3167 | 132.77 | 19 52 09 Z | 19 53 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - page 4.25-2.

Typhoon June (Western Pacific) - 0600Z (11/20/75)



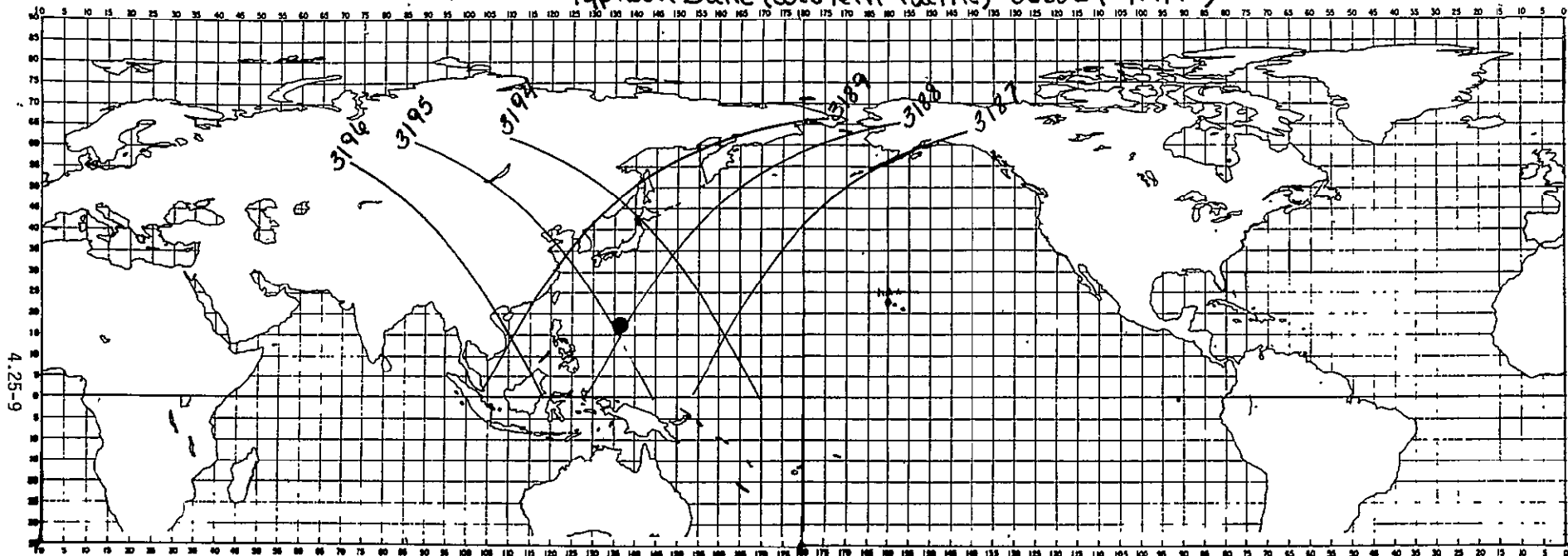
LOCATION *

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 15.0N | 138.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3173 | -19.16 | 06 02 51 Z | 0652Z | No | | | |
| 3174 | -44.48 | 07 44 38 Z | 0830Z | No | | | |
| 3180 | 163.57 | 17 55 21 Z | 1803Z | No | | | |
| 3181 | 138.25 | 19 37 08 Z | 1941Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.25-2.

Typhoon June (Western Pacific) - 0600Z (11/21/75)



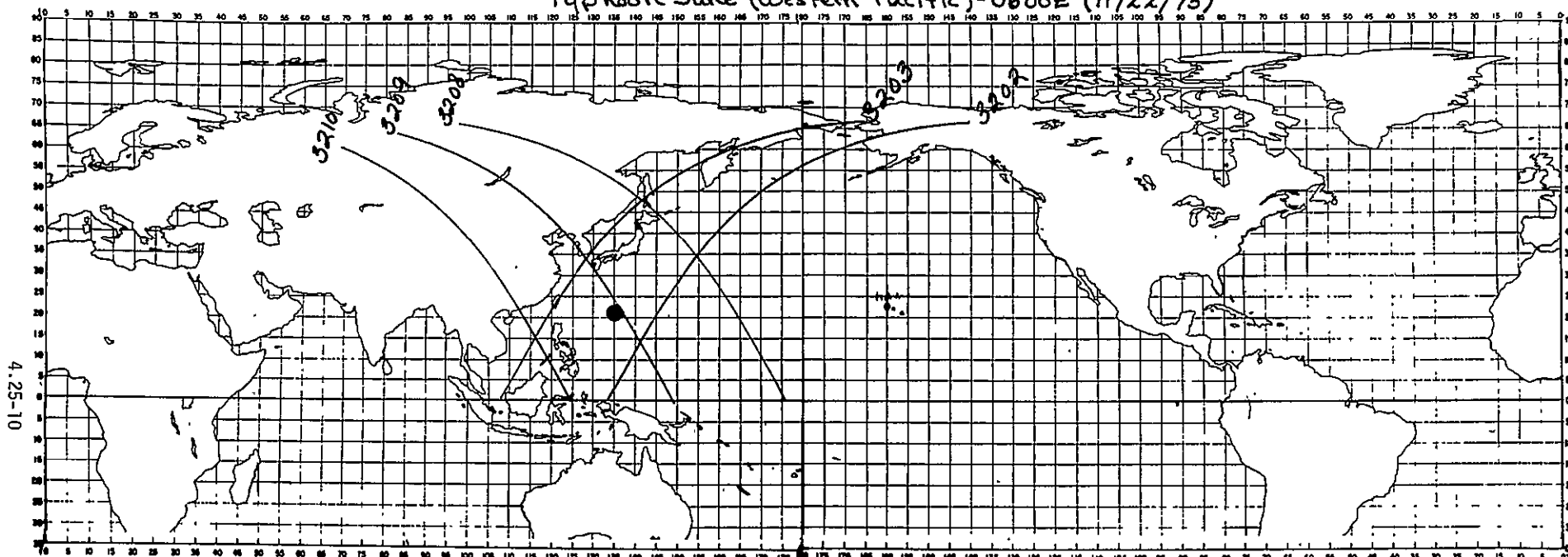
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 17.5N | 136.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIT.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3187 | -13.68 | 05 47 50 Z | 0637Z | No | | | |
| 3188 | -39.00 | 07 29 37 Z | 0816Z | No | | | |
| 3189 | -64.33 | 09 11 24 Z | 0953Z | No | | | |
| 3194 | 169.04 | 17 40 20 Z | 1750Z | No | | | |
| 3195 | 143.72 | 19 22 07 Z | 1927Z | No | | | |
| 3196 | 118.40 | 21 03 54 Z | 2105Z | No | | | |

* Position estimated from track map - Page 4.25-2.

Typhoon June (Western Pacific)-0600Z (11/22/75)



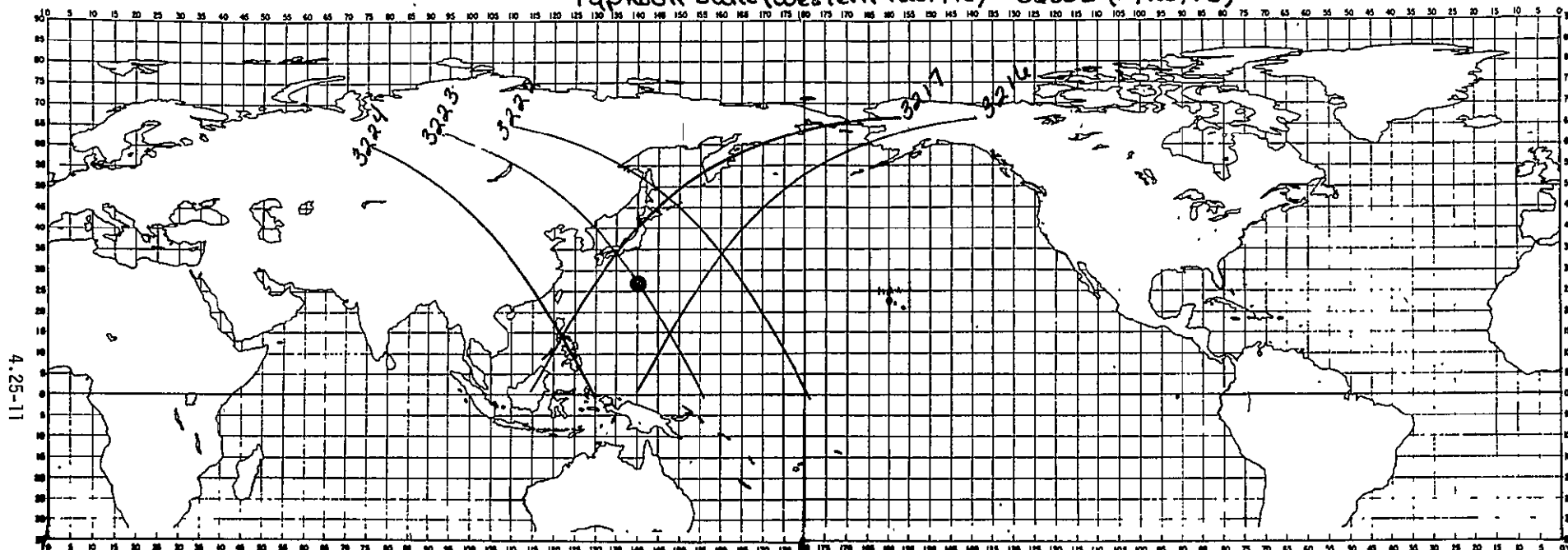
LOCATION*

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 21.0 N | 135.0 E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3202 | -33.53 | 07 14 36 Z | 0801Z | No | | | |
| 3203 | -58.85 | 08 56 23 Z | 0938Z | No | | | |
| 3208 | 174.52 | 17 25 19 Z | 1737Z | No | | | |
| 3209 | 149.20 | 19 07 06 Z | 1914Z | No | | | |
| 3210 | 123.87 | 20 48 53 Z | 2052Z | No | | | |
| | | | | | | | |

* Position estimated from track map - page 4.25-2.

Typhoon June (Western Pacific) - 0600Z (11/23/75)



LOCATION*
Extratropical

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0600Z | 27.0N | 140.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3214 | -28.05 | 06 59 35Z | 0745Z | No | | | |
| 3217 | -53.38 | 08 41 22Z | 0922Z | No | | | |
| 3222 | -179.99 | 17 10 18Z | 1724Z | No | | | |
| 3223 | 154.67 | 18 52 05Z | 1900Z | No | | | |
| 3224 | 129.35 | 20 33 52Z | 2039Z | No | | | |

* Position estimated from track map - page 4.25-2.

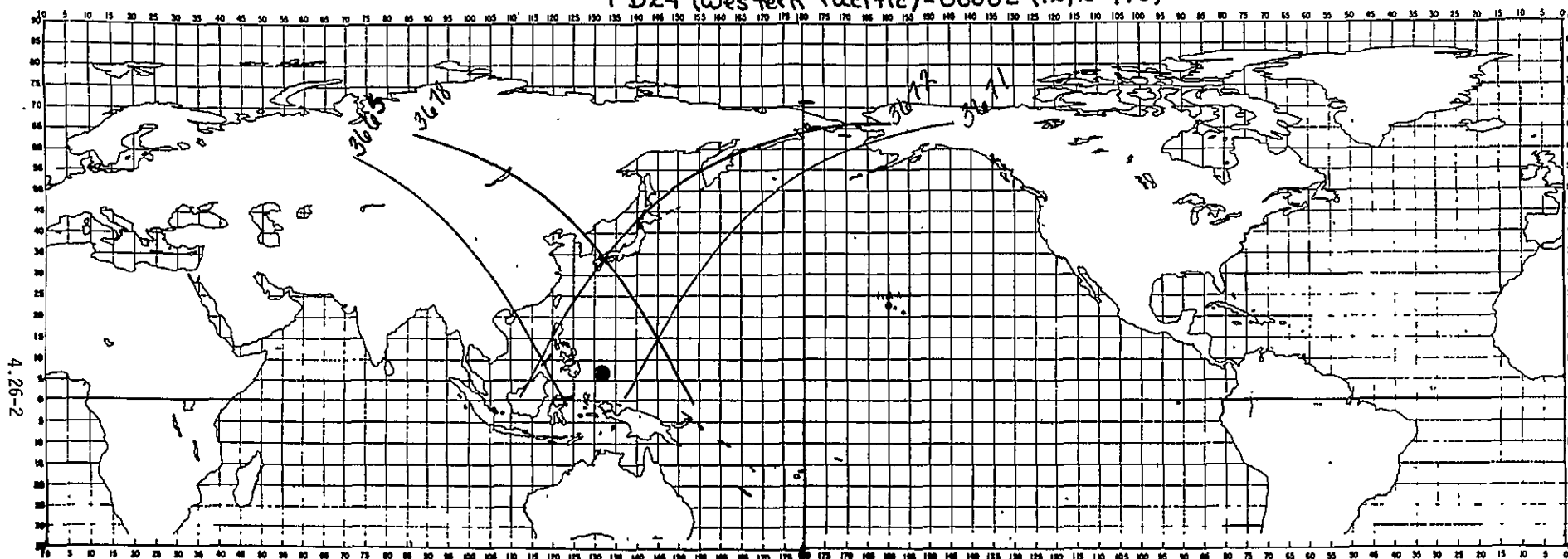
DTSTURBANCE: TD24

DATE: December 25 - December 28, 1975

| Date | Time GMT | Position * | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|------------|-----------|------------------|---------------|----------------------|
| | | Latitude | Longitude | | | |
| 12/25 | 0000Z | 7.0N | 131.0E | | | Tropical Disturbance |
| 12/26 | 0000Z | 10.0N | 127.5E | | | Tropical Disturbance |
| 12/27 | 0000Z | 13.5N | 124.5E | | | Tropical Depression |
| 12/28 | 0000Z | 14.5N | 121.0E | | | Tropical Depression |

* Positions estimated from track map - see page 4.1-5.

TD24 (Western Pacific)-0000Z (12/25/75)



LOCATION*

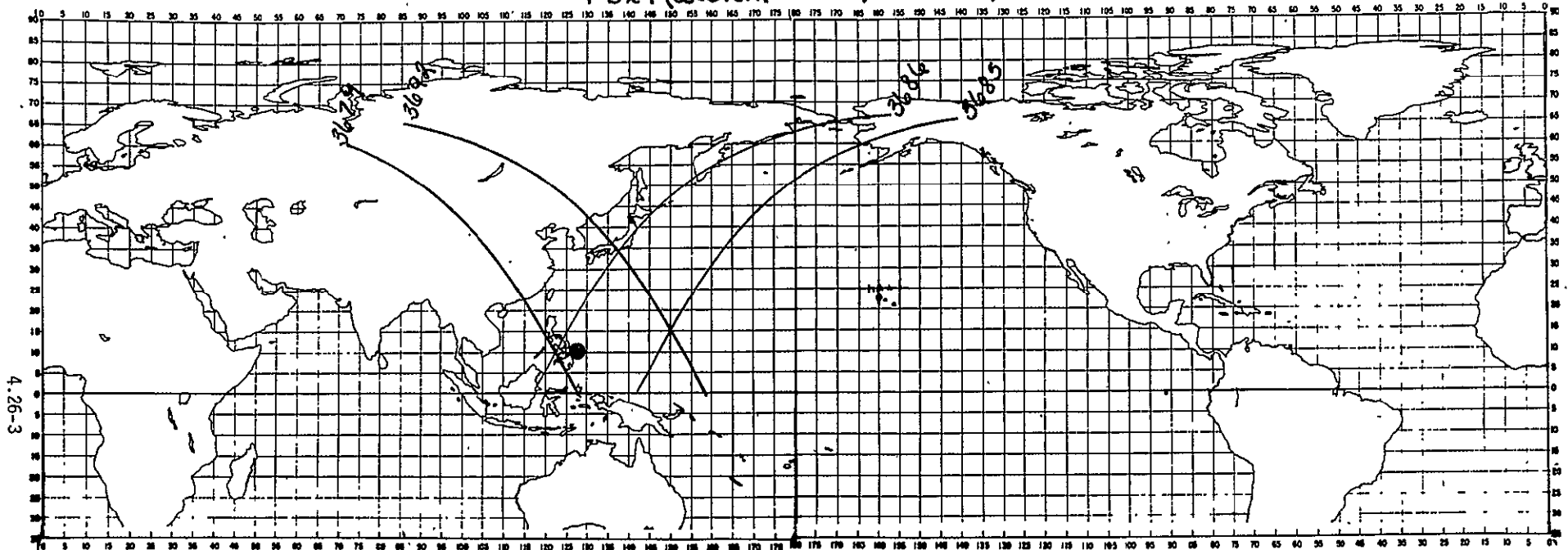
Tropical Disturbance

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 7.0N | 131.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3665 | 121.85 | 00 40 47 Z | 0041Z | No | | | |
| 3671 | -30.08 | 10 51 29 Z | 1141Z | No | | | |
| 3672 | -55.41 | 12 33 17 Z | 1320Z | No | | | |
| 3678 | 152.65 | 22 43 59 Z | 2249Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - page 4.1-5.

TD24 (Western Pacific) -0000Z (12/26/75)



4.26-3

LOCATION*

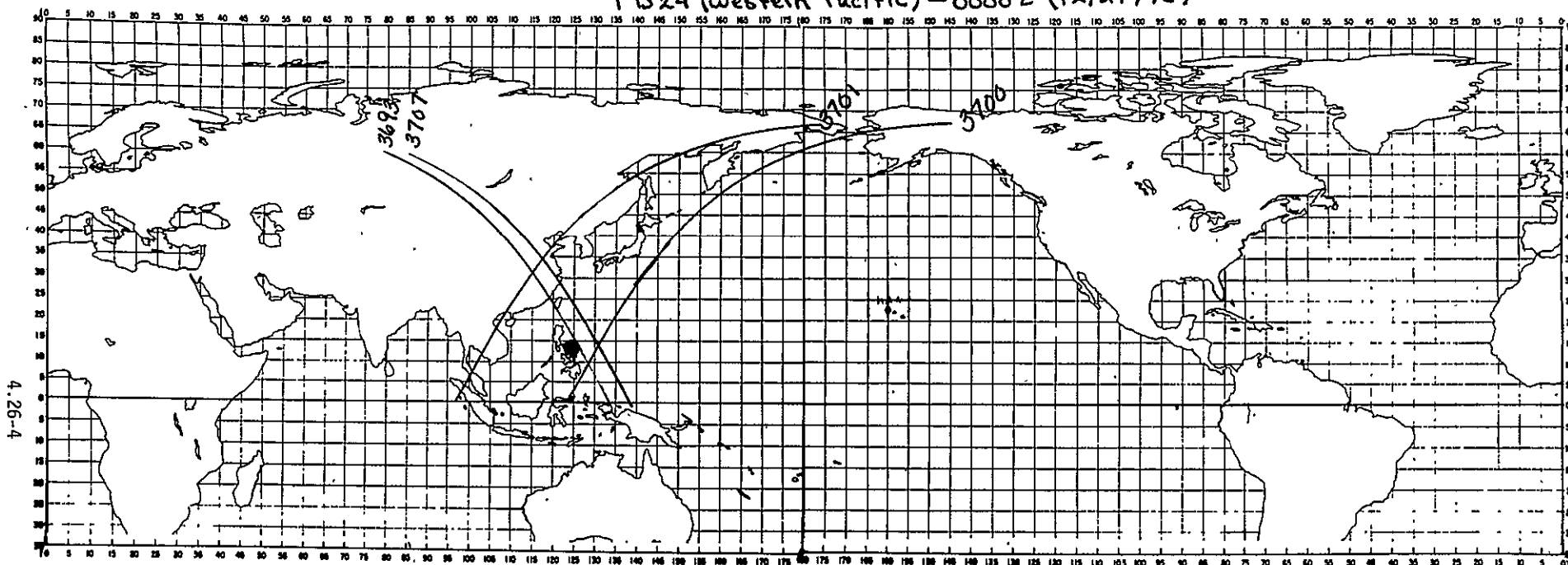
Tropical Disturbance

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 10.4N | 127.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3679 | 127.32 | 00 25 46 E | 0027Z | No | | | |
| 3685 | -24.60 | 10 36 28 E | 1126Z | No | | | |
| 3686 | -49.93 | 12 18 15 E | 1305Z | No | | | |
| 3692 | 158.12 | 22 28 58 E | 2237Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map, page 4.1-5.

TD 24 (Western Pacific) - 0000Z (12/27/75)



4.26-4

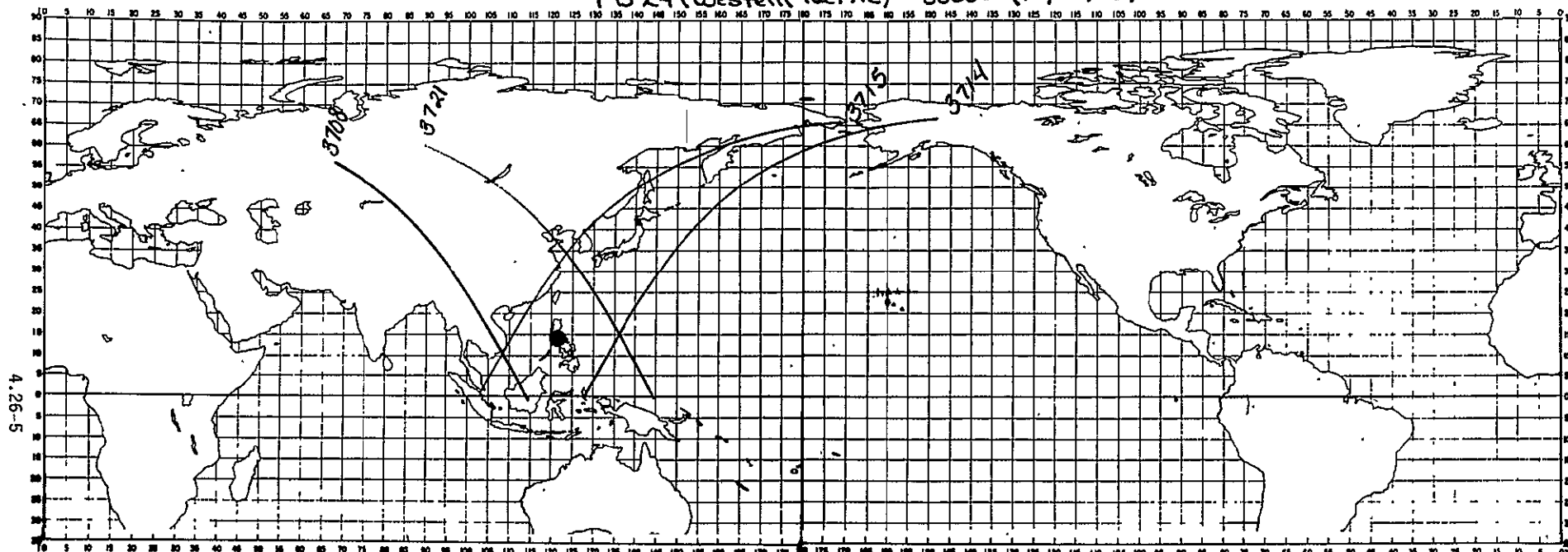
LOCATION* Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 13.5 N | 124.5 E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3693 | 132.80 | 00 10 45 Z | 0015 Z | No | | | |
| 3700 | -44.45 | 12 03 14 Z | 1251 Z | No | | | |
| 3701 | -69.77 | 13 45 01 Z | 1439 Z | No | | | |
| 3707 | 138.28 | 23 55 44 Z | 2401 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

*Position estimated from track map - page 4.1-5.

TD 24 (Western Pacific) - 0000Z (12/28/75)



4.26-5

LOCATION * Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 14.5N | 121.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3708 | 112.95 | 01 37 31 Z | 0140Z | No | | | |
| 3714 | -38.97 | 11 48 13 Z | 1247Z | No | | | |
| 3715 | -64.30 | 13 30 00 Z | 1415Z | No | | | |
| 3721 | 143.75 | 23 40 43 Z | 2348Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.1-5.

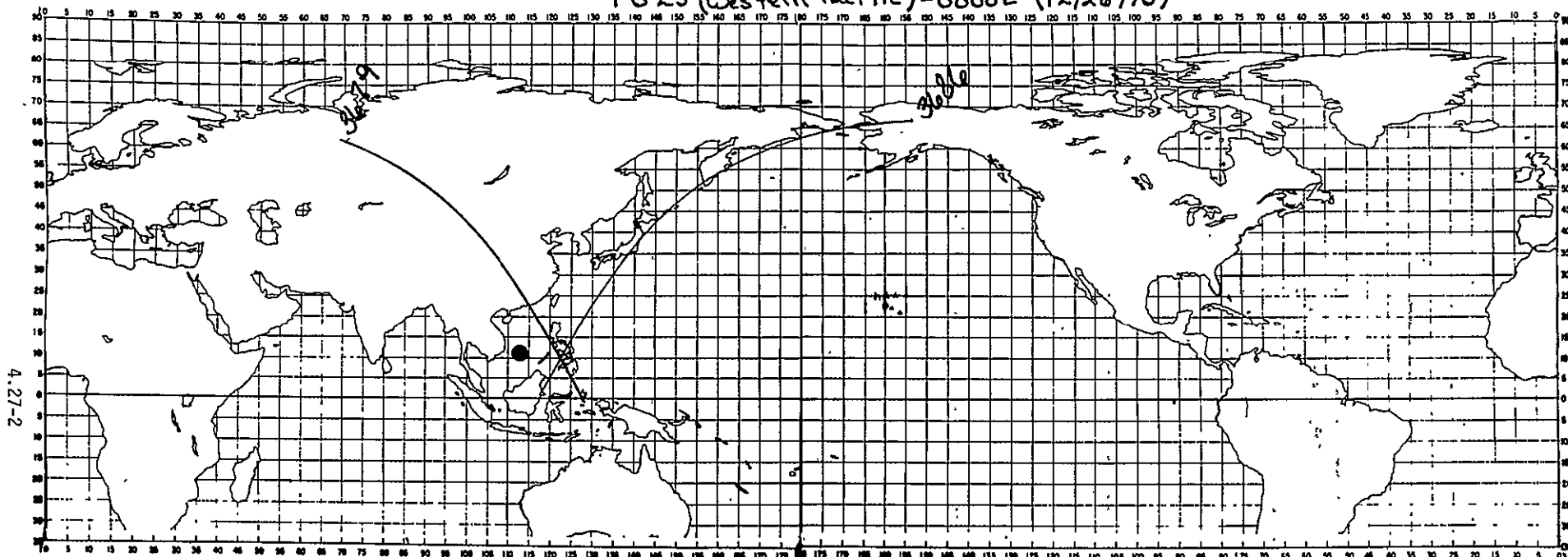
DISTURBANCE: TD25

DATE: December 26 - December 29, 1975

| Date | Time GMT | Position* | | Pressure (MB) | Wind (KTS) | Stage |
|-------|-------------|-----------|-----------|------------------|---------------|----------------------|
| | | Latitude | Longitude | | | |
| 12/26 | 0000Z | 11.0N | 113.0E | | | Tropical Disturbance |
| 12/27 | 0000Z | 11.0N | 114.5E | | | Tropical Depression |
| 12/28 | 0000Z | 10.0N | 115.5E | | | Tropical Depression |
| 12/29 | 0000Z | 8.5N | 117.0E | | | Tropical Depression |

* Positions estimated from track map - see page 4.1-5.

TD 2.5 (Western Pacific) - 0000Z (12/26/75)



LOCATION*

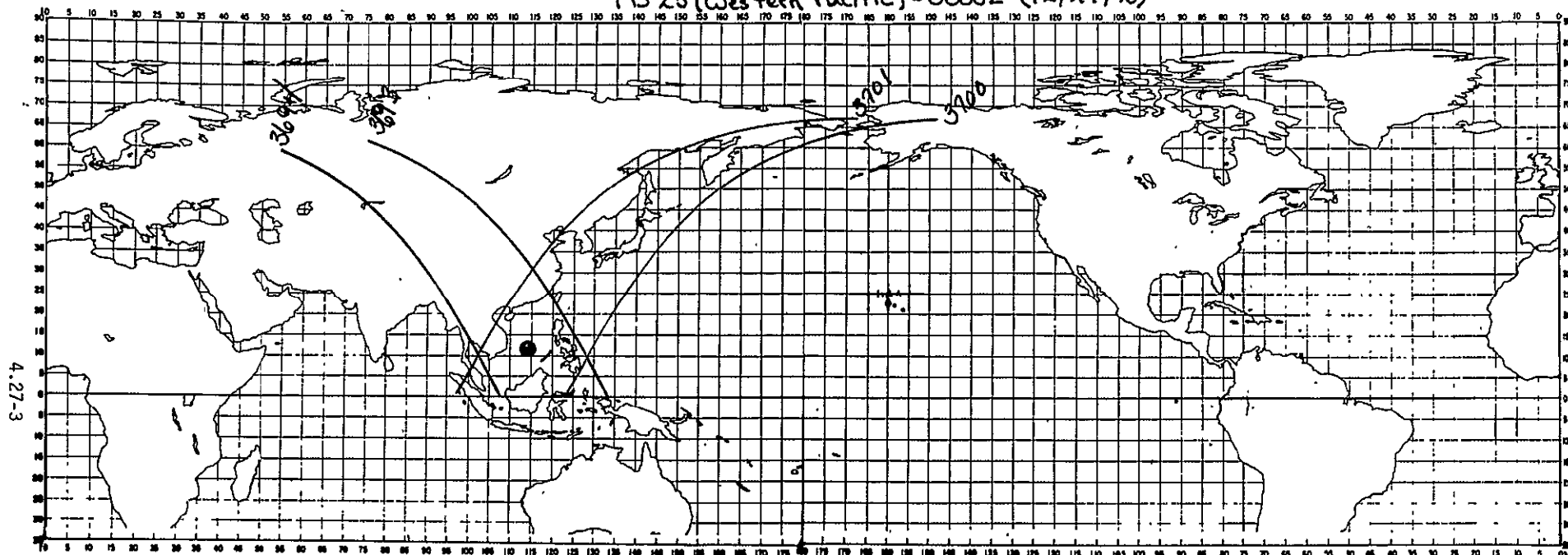
Tropical Disturbance

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 11.0N | 113.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3679 | 127.32 | 00 25 46 Z | 0115Z | Do | | | |
| 3686 | -49.93 | 12 18 15 Z | 1223Z | Do | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.1-5.

TD 25 (Western Pacific) - 0000Z (12/27/75)



LOCATION *

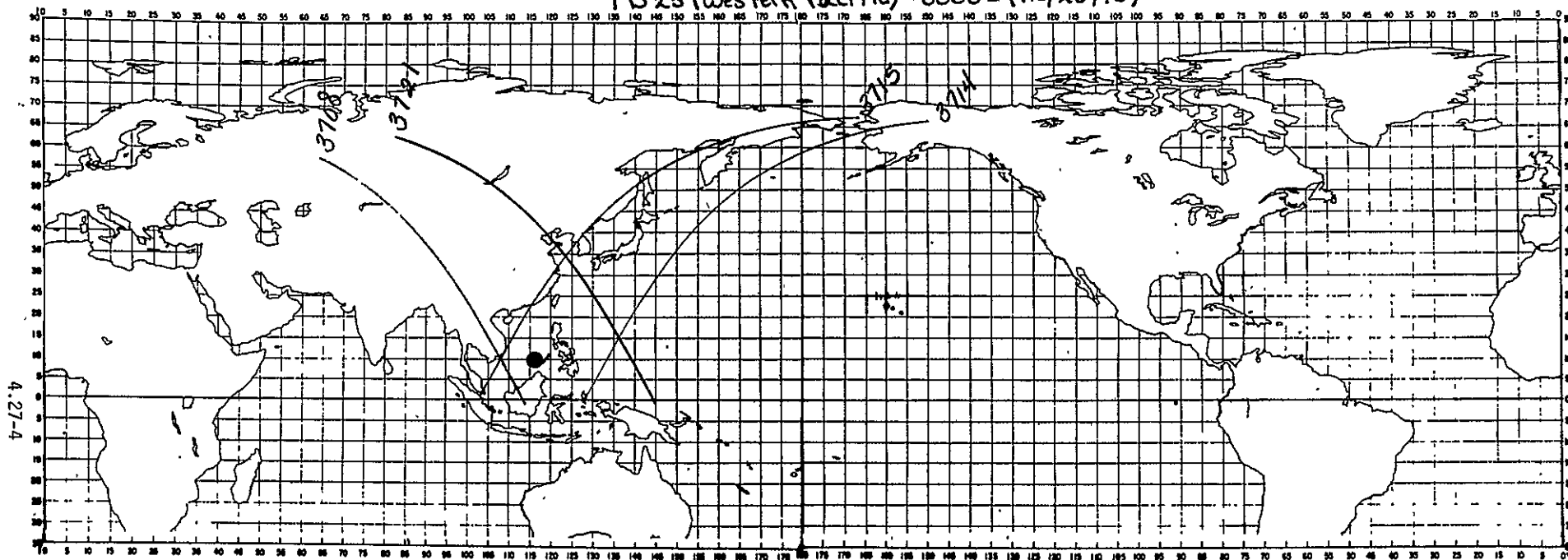
Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 11.0 N | 114.5 E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3693 | 132.80 | 00 10 45 Z | 00 16 Z | No | | | |
| 3694 | 107.48 | 01 52 32 Z | 01 55 Z | No | | | |
| 3700 | -44.45 | 12 03 14 Z | 12 52 Z | No | | | |
| 3701 | -69.77 | 13 45 01 Z | 14 31 Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position estimated from track map - page 4.1-5.

TD 25 (Western Pacific) - 0000Z (12/28/75)



4.27-4

LOCATION*

Tropical Depression

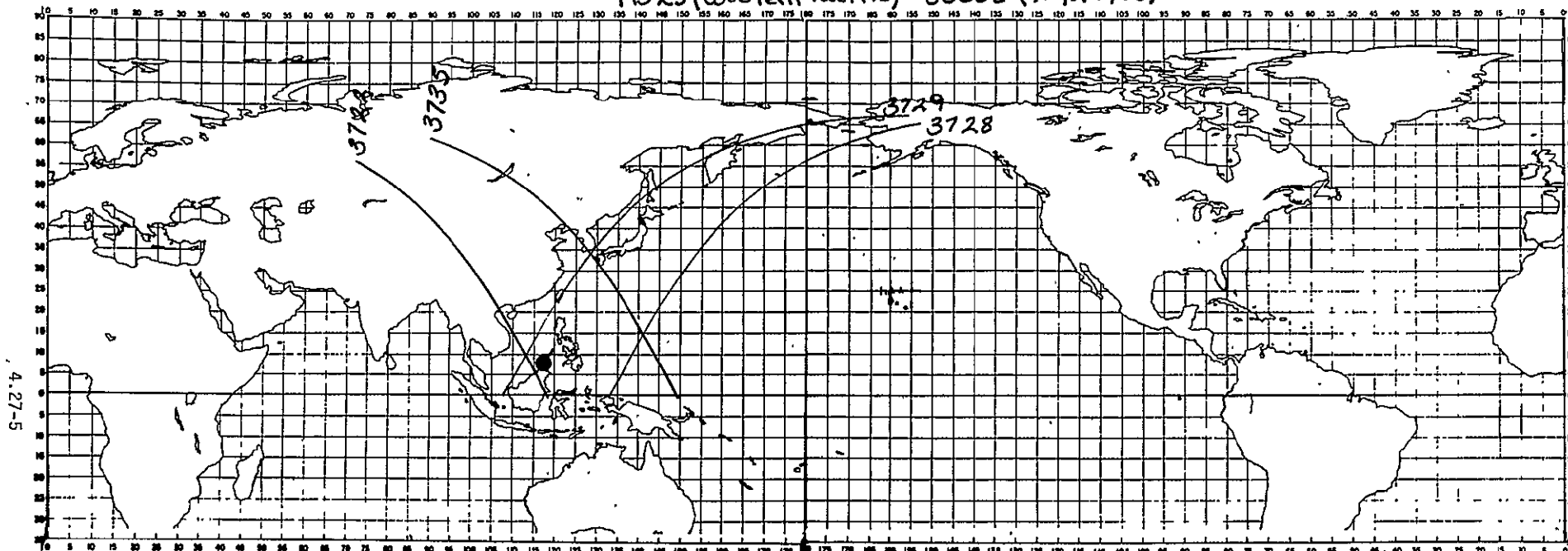
| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 10.0N | 115.5E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3708 | 112.95 | 01 37 31Z | 0141Z | No | | | |
| 3714 | -38.97 | 11 48 13Z | 1239Z | No | | | |
| 3715 | -64.30 | 13 30 00Z | 1417Z | No | | | |
| 3721 | 143.75 | 23 40 43Z | 2348Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Positions estimated from track map - page 4.1-5.

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TD 25 (Western Pacific) - 0000Z (12/29/75)



4.27-5

LOCATION*

Tropical Depression

| TIME | LATITUDE | LONGITUDE |
|-------|----------|-----------|
| 0000Z | 8.5N | 117.0E |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |
| --- | --- | --- |

| ORBIT | EQUATOR CROSSING | TIME OF EQUATOR CROSSING | APPROXIMATE PCA | ON | OFF | MODE | UNIQ.# |
|-------|------------------|--------------------------|-----------------|----|-----|------|--------|
| 3722 | 118.43 | 01 22 30 Z | 0124Z | No | | | |
| 3728 | -33.50 | 11 33 12 Z | 1224Z | No | | | |
| 3729 | -58.82 | 13 14 59 Z | 1403Z | No | | | |
| 3735 | 149.23 | 23 25 41 Z | 2334Z | No | | | |
| | | | | | | | |
| | | | | | | | |

* Position determined from track map - page 4.1-5.

APPENDIX A

TROPICAL DISTURBANCE
CLASSIFICATION WORKSHEETS
(CENTRAL & WESTERN PACIFIC)

Source Material

DISTURBANCE NAME OR NUMBER

TD #2

OCEANIC AREA

W. Pac

MONTH

APR 75

| DATE TIME | TYPE OF DATA | D S W | DD. EXP. T | DATA PRELIM T | | | PAT- TERN COMP. | FINAL T | FINAL C.I. | C.F. 1 2 3 | R S A | + or - | FCST C.I. | Code D T () / () ± / S () / () HRS W | POSITION INFORMATION | | | | | I N T L | QUALITY CONTROL | | | | | | |
|--------------|--------------------|-------------|------------------|---------------------|--------|--------|-----------------------|------------|---------------|---------------------|-------------|--------------|--------------|---|----------------------|--------|--------|--------|--------|------------------|-----------------|--------|--------|--------|--------|--------|--------|
| | | | | CF | BF | T | | | | | | | | | PRESENT | | FCST | | PRELIM | | FINAL | | | | | | |
| | | | | | | | | | | | | | | | Lat. | Long. | C.F. | Lat. | Long. | | CF | BF | T | C.I. | | | |
| 19/3320 | VIS | D | 15 | 15 | 0 | 1.5 | C? | 1.5 | 1.5 | 1 | | | 2 | T15/1.5/D0.5/24HRS | 2.7N | 136E | ✓ | | | | | | | | | | |
| 20/1150Z | IR | S | 15 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | 1 | | | 2 | T1.5/1.5/D0.5/24HRS | 55N | 131E | 2 | | | | | | | | | | |
| 21/015 | VIS | S | 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | 1 | | | 2 | T7.5/1.5/L0.0/24HRS | 7.3N | 127.3E | ✓ | | | | | | | | | | |
| 21/29 | IR | Below | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds |
| 22/010 | VIS | D | 2 | 2 | 0 | 2 | | 2 | 2 | 1 | | | 3 | T2/2/D0.5/24HRS | 9.2N | 126.5E | 2 | | | | | | | | | | |
| 23/005 | VIS | D | 3 | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | 1 | | | 3.5 | T2.5/2.5/D0.5/24HRS | 12.2N | 122.8E | 1 | | | | | | | | | | |
| 23/1214 | VIS | S | 2.5 | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | 2 | | | 2.5 | T2.5/2.5/S0/12 | 10.5N | 121.5E | 2 | | | | | | | | | | |
| 23/1503 | VIS | S | 2.5 | 2.5 | 0 | 1.5 | | 2.5 | 2.5 | 1 | | + | 3 | T2.5/2.5+/S0/24HRS | 12N | 121E | 1 | | | | | | | | | | |
| 24/140 | IR | S | 2.5 | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | 2 | | | 2.5 | T2.5/2.5/S0/24HRS | 11N | 120.5E | 2 | | | | | | | | | | |
| 25/0003 | VIS | W | 1.5 | 1.5 | 0 | 1.5 | | 2 | 2.5 | 1 | | + | 2.5 | T2/2.5PWS/W0.5/24HRS | 11.5N | 120.3E | 2 | | | | | | | | | | |
| 25/1232 | IR | D | 2.5 | 2 | 0 | 2 | | 2 | 2 | 2 | | | 3 | T2/2/00/12405 | 11N | 119.3E | 2 | | | | | | | | | | |
| 26/1257 | VIS | D | 3 | 2 | 0 | 2 | | 2 | 2 | 1 | | | 3 | T2/2/D0/24HRS | 11.3N | 117.2E | 1 | | | | | | | | | | |
| 27/153 | VIS | S | 2 | 2 | 0 | 2 | | 2 | 2 | 1 | | | 2 | T2/2/00/24HRS | 11.5N | 115E | 2 | | | | | | | | | | |
| 27/1252 | IR | S | 2 | 2 | 0 | 2 | | 2 | 2 | 2 | | | 2 | T2/2/50/24HRS | 12N | 112.5E | 2 | | | | | | | | | | |
| 28/0053 | IR | Below | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds | clouds |

ORIGINAL PAGE IS HOW

REPRODUCIBILITY OF THIS
ORIGINAL PAGE IS POOR

OCEANIC AREA CENTRAL
PACIFIC

MONTH

July

DISTURBANCE NAME OR NUMBER Not carried by Guam

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|-------------|--------------------|----------------------|----|-----|----------------------|------------|---------------|-------------|--------------|---------------|-----------------------|----------------------|--------|------|--|---------|------------------|
| | | | | CF | BF | T | | | | | | | | Present | | Fest | | | |
| | | | | | | | | | | | | | | Lat. | Long | Lat. | Long | | |
| 21/2215Z | N4 VIS | D | 1.0 | 1 | 0 | 1 | (b) | 1 | 1 | A | | 2 | T1/1/0.5/24 | 23N | 171E | | DVLPD T: 0.4 ST 24 HRS AGO | | |
| 22/0904Z | IR | D | 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | | | 2.5 | T1.5/1.5/0.5/12 | 24.2N | 169.2E | | | 93 | |
| 22/1711Z | IR VIS | D | 2 | 2.5 | 0 | 2.5 | C | 2 | 2 | A | | 3 | T2/2/0.1.0/24 HRS | 27.0N | 160.1 | 31N | 172L | DH | |
| 23/08 | IR | D | 2.5 | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | A | | 3.5 | T2.5/2.5/0.1.0/24 HRS | 29N | 156.2E | | | 94 | |
| 23/2210 | VIS | S | 2 | 2 | 0 | 2 | a | 2 | 2 | A | | 2 | T2/2/50.0/24 HRS | 27.3N | 163.2E | | Relocated | CH | |
| 24/0901 | IR | W | 1.5 | 2 | 0 | 2 | | 2 | 2.5 | | | 1.5 | T2/2.5/0.0.5/24 HRS | 27N | 162E | | CENTER HAS DRONE AWAY FM COMBAT ON 23/2000N/162E | 94 | |
| 24/2304 | VIS | W | 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 2 | A | | 1 | T1.5/2/0.0.5/24 HRS | 27.7N | 162E | | | 94 | |
| 25/0953 | IR | W | 1 | 1 | 0 | 1 | | 1 | 2 | | | 1 | T1/2/0.1.0/24 HRS | 28N | 161E | | | 94 | |
| 25/2103 | VIS | W | Below limits | | | | | | | | | | | | | | 34W | 161E | 94 |
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DISTURBANCE NAME OR NUMBER MADONIE

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. I | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | In t l |
|---------------------|--------------|-------------|--------------------|----------------------|----|-----|----------------------|------------|--------------------|-------------|--------------|---------------|---------------------|----------------------|--------|------|------|----------------------------------|--------------|
| | | | | | | | | | | | | | | Present | | Fest | | | |
| | | | | CF | BF | T | | | | | | | | Lat. | Long | Lat. | Long | | |
| 24/0002 | VIS | D | 1.5 | 1.5 | .5 | 2 | b | 2 | 2 | A | | 3 | T2.2/D1.0/24HRS | 19N | 145.35 | | | Reclassified grade to T1 | SH |
| 26/1023 | IR | D | 2.5 | 2.5 | 0 | 2.5 | b | 2.5 | 2.5 | A | | 3.5 | T2.5/2.5/D1.0/24HRS | 20.7N | 144E | | | | SH |
| 26/2302 | VIS | D | 3 | 3 | 0 | 3 | | 3 | 3 | S | - | 3 | T3/3-D1.0/24 | 21.5N | 143E | | | Low LVL ENTN NR 22.5N, 141.8E | SH |
| 27/1023 | IR | D | 3 | 2.5 | 0 | 2.5 | f | 3 | 3 | S | | 3 | T3/3/S0.0/12HRS | 23.2N | 139E | | | Corrected to 139E | SH |
| 27/2350 | VIS | J | 3.5 | 2.5 | 0 | 2.5 | f | 2.5 | 3.0 | S | | 2 | T2.5/3/W0.5/24HRS | 23.5N | 139.6E | | | | SH |
| 28/0458 | IR | W | 2 | 2.5 | 0 | 2.5 | | 2.5 | 3.0 | W | | 2.5 | T2.5/3/W0.5/24 | E24.5N | 131.5E | | | | SH |
| 28/2255 | VIS | W | 1.5 | 2 | 0 | 2 | | 1.5 | 2.5 | | | 1.5 | T1.5/2.5/W1.0/24 | 26N | 135.5E | | | Low LVL ENTN NR 27N, 134.5E | SH |
| 29/11402 | IR | W | 1.5 | 1.5 | 0 | 1.5 | f | 1.5 | 2.5 | A | | 1.5 | T1.5/1.5/W1.0/24 | E26N | 131.5E | | | RELOCATED 28N 132.5E | SH |
| 29/2349 | VIS | S | 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | | | 1.5 | T1.5/1.5/S0/24 | E31N | 130E | | | | SH |
| 30/1412 | IR | S | 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | | | 1.5 | T1.5/1.5/S0/24 | E33N | 129E | | | | SH |

OCEANIC AREA W. PACIFIC MONTH JULY-AUG DISTURBANCE NAME OR NUMBER NINA

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REPRODUCIBILITY OF THE
ORIGINAL PAGE IS
NOT

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PACIFIC.

MONTH AUG

DISTURBANCE NAME OR NUMBER

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TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA

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TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA WEST PACIFIC MONTH AUGUST DISTURBANCE NAME OR NUMBER PHYLIS

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|-------------|--------------------|----------------------|-----|-----|----------------------|------------|---------------|-------------|--------------|---------------|----------------------|----------------------|--------|------|--|---------|------------------|
| | | | | | | | | | | | | | | Present | | Fest | | | |
| | | | | CF | BF | T | | | | | | | | Lat. | Long | Lat. | Long | | |
| 12/23 | 11-4 115 | D | 1 | .5 | | .5 | | 1 | 1 | | + | 2.5 | T1/1 PLUS/D1.0/24 | 13N | 132E | | 110T 110CH CIRCULATION | DH | |
| 12/23 | 11-4 115 | D | 1 | 1.5 | 0 | 1.5 | 1 | 1.5 | 1.5 | | + | 3 | T1.5/1.5/D1.0/24 | 14N | 136E | | LARGE AREA CIRCULATION | FJS | |
| 12/23 | 11-4 115 | D | 2.5 | 2.5 | 0 | 2.5 | C | 2.5 | 2.5 | R | | 4 | T2.5/2.5/D1.5/24 HRS | 13.3N | 131.3E | | | DH | |
| 12/18 | 11-4 115 | D | 3 | 3 | 0 | 3 | 1 | 3 | 3 | | | 4 | T3/3/D1.5/24 HRS | 15N | 135SE | | EMBEDDED IN LARGE CONVECTIVE AREA | FJS | |
| 14/1 | 115 | D | 4 | 3+ | 1.5 | 4.5 | | 4.5 | 4.5 | | | 5.5 | T4.5/4.5/D2.0/24 HRS | 18.4N | 136.5E | | 2 1/2 DEG GRID ADJUST STORM HEADING NORTH | DH | |
| 14/1 | 115 | D | 5.5 | 5.5 | 1 | 6.5 | b | 6 | 6 | R | + | 7 | T6/6+/D2.0/24 HRS | 22.9N | 136.5E | | EMBEDDED IN LARGE CONVECTIVE AREA | FJS | |
| 14/1 | 115 | D | 5.5 | 5 | 1+ | 6+ | a | 6 | 6 | | - | 6 | T6/6 MINUS/D1.0/24 | 25.7N | 137E | | SLIGHT GRID ADJUST CURVING E OF NORTH, SOME DEFORM FLARE YDA AS T5.0 TO 11 | DH | |
| 15/5R | 115 | S | 6 | 5 | 1 | 6 | bc | 6 | 6 | | | 6 | T6/6/50/24 HRS | 28.8N | 135.5E | | | DH | |
| 16/1057 | 115 | W | 5 | 4- | 1 | 5- | C | 5 | 6 | | | 5 | T5/6/W11.0/24 HRS | 29.4N | 134.2E | | CANAL SIGN SIGN OF RAPID DEGRADATION | DH | |
| 16/1057 | 115 | W | 5 | 4+ | 1- | 5- | e | 5 | 6 | | | 5 | T5/6/W1.0/24 HRS | 31N | 134E | | CONICAL FEATURE 5-1=4 for advection | DH | |
| 17/0058 | 115 | W | 4 | 4- | 1- | 5- | e | 4.5 | 5 | | - | 4 | T4.5/5 MINUS/W0.5/24 | 32.2N | 132.7E | | LAND EFFECT 12-24 HRS REASON FOR MINUS | DH | |
| 17/1154 | 115 | W | 4 | 3.5 | 0 | 3.5 | 3a+ | 3.5 | 4.5 | | | 3.5 | T3.5/4.5/W1.5/24 | 35.2N | 133E | | | DH | |
| 17/2358 | 115 | W | 3 | 3- | 0 | 3- | 3f | 3 | 4 | | | 3 | T3/4/W1.5/24 | 36.3 | 132.3 | | | DH | |

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DISTURBANCE NAME OR NUMBER Not carried by Green

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TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PACIFIC

MONTH AUG 1ST

DISTURBANCE NAME OR NUMBER RITA

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|-------------|--------------------|--|----|-----|----------------------|------------|---------------|-------------|--------------|---------------|--------------------|----------------------|--------|------|------|--|------------------|
| | | | | | | | | | | | | | | Present | | Fest | | | |
| | | | | CF | BF | T | | | | | | | | Lat. | long | Lat. | Long | | |
| 160202 | N4 VIS | D | 1 | 1.5 | 0 | 1.5 | a | 1.5 | 1.5 | | | 2.5 | T1.5/1.5/D10/24 | E23N E18N | 119.5E | | | TIED UP WITH LAND | DH |
| 161250 | IR | S | 12HR 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | | | 2.5 | T1.5/1.5/D10/24HRS | E23N | 119.5E | | | | 92 |
| 170002 | UIS | S | 1.5 | 1.5 | 0 | 1.5 | a | 1.5 | 1.5 | | | 1.5 | T1.5/1.5/500/24HRS | E23N | 120E | | | NEAR LAND AND SLOW MUG. SO DID NOT PUT PUT ON DULANT CURVE | J C |
| 171149Z | IR | No | definite | center to classify, but numerous suspect areas within convection 15N to 25N btwn 115E & 150E | | | | | | | | | | | | | | | J |

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PACIFICMONTH AugustDISTURBANCE NAME OR NUMBER RITA

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t i | |
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| | | | | CF | BF | T | | | | | | | | Present | | Fest | | | | |
| | | | | | | | | | | | | | | Lat. | Long | Lat. | Long | | | |
| 18/0000 | UIS | D | 1 | 1 | 0 | 1 | e | 1 | 1 | A | | 2 | T1/1/D0.5/24hrs | 24N | 130E | | | Anal. 20 10377 Circled 1 271 375 | T ₂ | |
| 18/1000 | IP | D | 1 | 1 | 0 | 1 | | 1 | 1 | | | 2 | T1/1/D0.5/24hrs | 25N | 130E | | | | T ₂ | |
| 19/0000 | UIS | D | 2 | 2.5 | 0 | 2.5 | 2b+ | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/D1.5/24 | 25N | 130E | | | Strong 2 or weak 2.5 | T ₂ | |
| 19/1145 | IR | D | 2 | 3 | 0 | 3 | | 3 | 3 | | | 4 | T3/3/D2.0/24hrs | 25N | 128.8E | | | | T ₂ | |
| 19/2000 | UIS | D | 3.5 | 3.5 | 0 | 3.5 | 3.5+ | 3.5 | 3.5 | | | 4.5 | T3.5/3.5/D1.0/24hrs | 26.3N | 129.8E | | | | T ₂ | |
| 20/0000 | IR | D | 4 | 3.5 | 0 | 3.5 | 4 | 3.5 | 3.5 | A | | 4.5 | T2.5/3.5/D0.5/24 | 27.0N | 130E | | | poor PIC QUAL. | T ₂ | |
| 21/0000 | UIS | D | 4.5 | 4.5 | 0 | 4.5 | e | 4.5 | 4.5 | | | 5.5 | T4.5/4.5/D1.0/24hrs | 28N | 131.3E | | | | T ₂ | |
| 21/1000 | IR | D | 4.5 | 3.5 | 1 | 4.5 | e | 4.5 | 4.5 | A | | 5.5 | T4.5/4.5/D1.0/24 | 30N | 132E | | | Final 10 012 0.5 10 R6D EYE | T ₂ | |
| 21/2350 | UIS | D | 5 | 3.5 | 1 | 4.5 | e | 4.5 | 4.5 | S | | 5 | T4.5/4.5/D0.5/24 | 30.1N | 133.5E | | | Perlonated up 1.1 1115 12 T4 | T ₂ | |
| 22/0000 | IR | D | 5.5 | 4 | 1 | 5 | (A) (G) | 5 | 5 | | - | 5 | T5/5/D0.5/24hrs | 33.2 | 133.7E | | | DISTINCT EYE | T ₂ | |
| 23/0000 | UIS | W | 3.5 | 3 | 0 | 3 | | 3 | 4 | R | | 3 | T3/4/W1.5/24hrs | 36.0N | 135.5E | | | | T ₂ | |
| | | | | | | | | | | | | | | | 40N | 141E | | | | T ₂ |
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REPRODUCIBILITY OF THIS
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TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W of Pacific MONTH August

DISTURBANCE NAME OR NUMBER

T0#29 T/S

SUSAN

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|-------------|--------------------|----------------------|----|-----|----------------------|------------|---------------|-------------|--------------|---------------|---------------------|----------------------|--------|------|------|--|------------------|
| | | | | CF | BF | T | | | | | | | | Present | | Fest | | | |
| | | | | | | | | | | | | | | Lat. | long | Lat. | Long | | |
| 24/2242 | NH VIS | D | — | | | | | ST 1.5 | 1.5 | | | | ST 1.5/1.5 D/24 HRS | 23N | 154E | | | SYM APPEARS TO BE GOING TROPICAL | 5c |
| 25/0924 | NH IR | D | | | | | | 1.5 | 1.5 | | | | ST 1.5/1.5 D/24 | 23N | 153.5E | | | | 3H |
| 25/2147 | VIS | D | | | | | | 1.5 | 1.5 | | | 2.5 | ST 1.5/1.5 D/24 | 24N | 154.0E | | | | OK |
| 25/1031 | IR | D | | | | | | 2 | 2 | | | | ST 2/2 D/24 | 27.5N | 152.0E | | | | OK |
| 26/0100 | IR | D | | | | | | 2.5 | 2.5 | | | 3.5 | ST 2.5/2.5 D/24 | 27.5N | 152.0E | | | | OK |
| 27/0100 | IR | W | | | | | | 2 | 2.5 | | | 1.5 | ST 2/2.5 W/0.5/12 | 31.7N | 151.8E | | | | R ₂₃ |
| 27/2134 | VIS | D | | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | S | | 3 | T 2.5/2.5 D/24 | 31.7N | 151.8E | | | | 5c |
| 28/1027 | IR | D | | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | S | | 3 | T 2.5/2.5 D/24 | 34N | 157.5E | | | USUALLY CLOUDY TYPICAL PREVIOUS VIS | R ₂₃ |
| 28/2334 | VIS | D | | 3.5 | .5 | 4 | | 3.5 | 3.5 | S | | 4 | T 3.5/3.5 D/24 | 34.9N | 152.3E | | | | R ₂₃ |
| 29/0130 | IR | D | | 3.5 | 0 | 3.5 | | 3.5 | 3.5 | | - | 3.5 | T 3.5/3.5 D/24 | 36N | 154.3E | | | | R ₂₃ |
| 29/0220 | VIS | D | 4.5 | 4 | 5 | 4 | a | 4 | 4 | | - | 4.0 | T 4/4 M/0.5 D/24 | 36.3N | 156.8E | | | | 5.1 |
| 30/0855 | IR | D | 4.5 | 4 | 0 | 4 | | 4 | 4 | | - | 4 | T 4/4 -/0.5/24 | 37.2N | 157.7E | | | | R ₂₃ |
| 30/0721 | VIS | W | 3.0 | 3.0 | 0 | 3.0 | a | 3 | 4 | | | 3 | T 3/4 -/0.5/24 | 37.2N | 157.5E | | | | 5.1 |
| 31/0721 | IR | W | 3 | 3.5 | 0 | 3.5 | | 2.5 | 3.5 | | | 2.5 | T 2.5/3.5 W/1.5/24 | 39.3N | 157E | | | | R ₂₃ |
| 31/2322 | VIS | W | 2 | 3- | 0 | 3- | 3c | 2.5 | 3 | | | 2 | T 2.5/3 W/0.5/24 | 39.3N | 157E | | | | R ₂₃ |
| 01/0720 | IR | W | 1.5 | 2 | 0 | 2 | | 2 | 2.5 | | | 1.5 | T 2/2.5 W/0.5/24 | 40.7N | 156.2E | | | SHUD BE LAST TAIL! R23 | R ₂₃ |
| 01/2222 | VIS | W | 1.5 | 1 | 0 | 1 | | 1 | 2 | | | 1 | T 1/2 W/1.5/24 HRS | 41N | 156E | | | NO CONVECTION | R ₂₃ |

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA V. PAC.MONTH SEPT.DISTURBANCE NAME OR NUMBER TESS

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t i |
|---------------------|--------------|-------------|--------------------|----------------------|-----|-----|----------------------|------------|---------------|-------------|--------------|---------------|--------------------|----------------------|--------|------------------|------|---------|------------------|
| | | | | | | | | | | | | | | Present | | Fest | | | |
| | | | | CF | BF | T | | | | | | | | Lat | Long | Lat | Long | | |
| 31/719 | IR | D | 1 | 1 | 0 | 1 | C | 1 | 1 | | | 2 | T1/1/1 | 18.5N | 153.5E | | | | |
| 31/2135 | VIS | D | 1.5 | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | | | 2.5 | T1.5/1.5/D0.5/12HR | 16.9N | 153.1E | | | | |
| 1/1013 | IR | D | 2 | 1.5 | 0 | 1.5 | | 2 | 2 | | | 3 | T2/2/D1.0/24 | 17N | 151.4E | | | | |
| 01/2209 | VIS | D | 2.5 | 2.5 | 0 | 2.5 | 3a- | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/D1.0/24HR | 17.8N | 150.4E | | | | |
| 02/108 | IR | D | 3 | 3 | 0 | 3 | | 3 | 3 | | | 4 | T3/3/D1.0/24HR | 19N | 150E | | | | |
| 02/1105 | VIS | D | 3.5 | 3.5 | 0 | 3.5 | 3b | 3.5 | 3.5 | A | | 4.5 | T3.5/3.5/D1.0/24 | 19N | 149E | | | | |
| 03/1009 | IR | | 4 | 4 | 0 | 4 | | 4 | 4 | | | 5 | T4/4/D1.0/24HR | 19.5N | 149.2E | grid correction | | | |
| 03/2223 | VIS | D | 4.5 | 2.5 | 1.5 | 4 | | 4 | 4 | | | 5 | T4/4/D0.5/24HR | 20N | 148.8E | | | | |
| 04/1105 | IR | D | 5 | 3 | 2 | 5 | | 5 | 5 | | | 6 | T5/5/D1.0/24HR | 22.5N | 148E | grid correction | | | |
| 04/1105 | IR | | 5 | 3.5 | 1 | 4.5 | | 5 | 5 | | - | 5 | T5/5/D1.0/24 | 23.5N | | | | | |
| 04/1105 | IR | D | 5 | 4 | 1.5 | 5.5 | | 5.5 | 5.5 | SL | - | 5.5 | T5.5/5.5/D0.5/24HR | 25.5N | 145.8E | grid correction | | | |
| 05/2216 | VIS | S | 5 | 3.5 | 1.5 | 5 | | 5 | 5.5 | | | 5 | T5/5.5/S0/24HR | 26.5N | 141E | | | | |
| 06/1102 | IR | W | 4.5 | 4 | 1 | 5 | e | 5 | 5.5 | | | 4.5 | T5/5.5/W0.5/24HR | 28.1N | 145.1E | | | | |
| 06/1310 | VIS | W | 4.5 | 4.5 | 0 | 4.5 | | 4.5 | 5 | | | 4 | T4.5/5/W0.5/24 | 28.3N | 145.1E | WAT-GED | | | |
| 07/1032 | IR | N | 4 | 3.5 | 1.5 | 4 | e | 4 | 5 | | | 4 | T4/5/W1.0/24 | 29N | 145.2E | | | | |
| 08/1005 | VIS | W | 3.5 | 2.5 | 1.5 | 3 | | 3 | 4 | | | 3 | T3/4/W1.5/24HR | 29.7N | 146.3E | NO CENU NR CNTR. | | | |

Tess (Cont.)

[illegible]

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PACIFIC

MONTH SEPT

DISTURBANCE NAME OR NUMBER TD 11 VIOLA

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|-------------|--|----------------------|----|-----|----------------------|------------|---------------|-------------|--------------|---------------|---------------------|----------------------|--------|---------------------------|------|---------|------------------|
| | | | | CF | BF | T | | | | | | | | Présent | | Fest. | | | |
| | | | | | | | | | | | | | | Lat: | Long | Lat: | Long | | |
| 04/ 2370 | VIS | D | 1 | 3 | 0 | 3 | f | 2 | 2 | R | + | 35 | T2/2PLOS/DI.S/24HRS | 156.1 | 130.8E | | | | DH |
| 05/ 1159 | IR | D | 1.5 | 2.5 | 0 | 2.5 | | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/D0.5/24HRS | E15.8N | 131E | | | | 2 |
| 06/ 0015 | VIS | D | 3.5 | 2.5 | 1 | 3.5 | | 3 | 3 | | + | 4.5 | T3/3+/D1.0/24 | 16.2N | 131.5E | CNTR NOT VRY WELL DEF. | | | 15 B |
| 07/ 2314 | IR | D | 4 | 3 | 0 | 3 | | 3 | 3 | S | | 35 | T3/3/D0.5/24 | 19N | 133E | | | | 5 Dc |
| 07/ 2314 | VIS | W | 2 | 2 | 0 | 2 | | 2 | 3 | | | 2 | T3/3/W1.0/24 | 20N | 135E | CNTR POOR | | | 15 Dc |
| 07/ 1155 | IR | W | 2 | 1 | 0 | 1 | | 1 | 2 | | | 1 | T1/2/W2.0/24 | 22N | 136E | Very Wk | | | 15 Dc |
| 08/ 0008 | VIS | W | NO CLASSIFICATION - TOO WEAK - NO CNTR | | | | | | | | | | | | | | | | 15 Dc |

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PAC

MONTH SEP

DISTURBANCE NAME OR NUMBER WINNIKE (TOIZ)

[illegible]

OCEANIC AREA. (1) Pac

MONTH Sept 75

DISTURBANCE NAME OR NUMBER TD-13 ALICE

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C:I | R S A | + or - | Fest. C:I | Code | Position-Information | | | | Remarks | I n t e r n e t |
|---------------------|--------------|-------------|--------------------|----------------------|----|------|----------------------|------------|--------------|-------------|--------------|--------------|---------------------|----------------------|--------|------|-----------------------------|---------|--------------------------------------|
| | | | | CE | BE | T | | | | | | | | Present | | Fest | | | |
| | | | | | | | | | | | | | | Lat: | Long | Lat: | Long | | |
| 15/0055 | VIS | D | 1 | 1 | 0 | 1 | F | 1 | 1 | | | 2 | T1/1/DO.5/24HRS | 11.3N | 130.4E | | relieved to 12.8N 131.8E | PH | |
| 16/1112 | IR | D | 1.5 | 1.5 | 0 | 1.5 | A | 1.5 | 1.5 | A | | 2.5 | T1.5/1.5 D1/24HRS | 13N | 130.5E | | | FS | |
| 15/2351 | VIS | D | 2 | 2 | 0 | 2 | C | 2 | 2 | | | 3 | T2/2/D1.0/24HRS | 13.8N | 129.9E | | | PH | |
| 16/1212 | IR | D | 2.5 | 2 | .5 | 2.5 | | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/D1.0/24 | 14.6N | 127E | | | PH | |
| 17/0046 | VIS | D | 3 | 3.5+ | 1 | 3.5+ | Ad | 3.5 | 3.5 | | - | 3.5 | T3.5/3.5-/D1.5/24 | 14.9N | 124.1E | | | PH | |
| 17/1232 | IR | D | 3.5 | 3.0 | 1 | 4 | 4d | 4 | 4 | | - | 4.0 | T4/4-/D1.5/24 | 15.2N | 122.5E | | | PH | |
| 18/0140 | VIS | W | 3.5 | 2.5 | 1- | 3.5- | | 3.5 | 4 | | + | 4.0 | T3.5/4 PLUS/W0.5/12 | 16N | 120.2E | | | PH | |
| 18/1224 | IR | W | 3.0 | 3.5 | 0 | 3.5 | 3.5A | 3.5 | 4 | A | | 4.0 | T3.5/4 PLUS/W0.5/24 | 17.1N | 116.2E | | | PH | |
| 19/0040 | VIS | D | 4.5 | 2.5 | 1+ | 3.5+ | Ad | 4 | 4 | | | 5 | T4/4/DO.5/24HRS | 17.6N | 114.8E | | | PH | |
| 19/13A | IR | W | 3.5 | 3 | .5 | 3.5 | | 3.5 | 4 | | | 3 | T3.5/4/W0.5/24HRS | 19.4N | 110.5E | | over land | PH | |
| 20/0133 | VIS | W | 3 | 2 | .5 | 2.5 | | 2.5 | 3.5 | | | 2.5 | T2.5/3.5/W1.5/24HRS | 19.9N | 109E | | GRID CORRECTION | PH | |
| 7/122 | IR | | INLAND | | | | | | | | | | NO | CLASS. | 20N | 105E | | | PH |

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. Pac

MONTH Sept

DISTURBANCE NAME OR NUMBER TD-14 BETTY

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|-------------|--------------------|----------------------|------|------|----------------------|------------|---------------|-------------|--------------|---------------|---------------------|----------------------|--------|------|------|---------|------------------|
| | | | | CF | BF | T | | | | | | | | Present | | Fest | | | |
| | | | | | | | | | | | | | | lat. | long | Lat. | Long | | |
| 16/2251 | VIS | D | 1+ | 1.5 | 0 | 1.5 | | 1.5 | 1.5 | | | 2.5 | T1.5/1.5/D1.0/24HRS | 13.8N | 144.3E | | | SH | |
| 17/1128Z | IR | D | 1 | 2 | 5 | 2 | | 2 | 2 | | | 3.0 | T2/2/D1.0/24 | 16.6N | 141E | | | SH | |
| 17/2345 | VIS | D | 2.5 | 2+ | .5- | 2.5 | | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/D1.0/24HRS | 16.7N | 139.2E | | | SH | |
| 18/1629 | IR | D | 3 | 2 | 5 | 2.5 | | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/D0.5/24 | 16.8N | 137.8E | | | SH | |
| 19/0040 | VIS | D | 3.5 | 2.5- | .5+ | 3 | | 3 | 3 | | | 4 | T3/3/D0.5/24 | 17N | 138.3E | | | SH | |
| 9/1123 | IR | D | 3.5 | 3- | .5+ | 3.5 | | 3.5 | 3.5 | | | 4.5 | T3.5/3.5/D1.0/24HRS | 17.2N | 137.6E | | | SH | |
| 19/2339 | VIS | D | 4 | 3 | 1.5- | 4.5- | 4f | 4 | 4 | | | 5 | T4/4/D1.0/24 | 18.9N | 134.8E | | | SH | |
| 21/1220 | IR | D | 4.5 | 3.5 | 1 | 4.5 | | 4 | 4 | | | 5 | T4/4/D0.5/24 | 21.5N | 131.5E | | | SH | |
| 21/0033 | VIS | D | 5 | 3.5 | 1.5- | 5 | 5c | 5 | 5 | | | 6 | T5/5/D1.0/24 | 22.1N | 129E | | | SH | |
| 21/1121Z | IR | D | 5 | 4.5 | 1 | 5.5 | | 5.5 | 5.5 | | | 6.5 | T5.5/5.5/D0.5/24 | 23.2N | 125.9E | | | SH | |
| 22/0127 | VIS | D | 6 | 5 | .1 | 6 | 6c | 6 | 6 | A | | 6.5 | T6/6/D1.0/24 | 22.2N | 123.5E | | | SH | |
| 22/1715 | IR | W | 4.5 | 4.5 | .5 | 5 | | 5 | 5.5 | S | | 5 | T5/5.5/D0.5/24 | 22.5N | 120E | | | SH | |
| 23/0028 | VIS | W | 5 | 2 | 2 | 4 | d | 4 | 5 | R | | 4 | T4/5/W2.0/24 | 22.8N | 119E | | | SH | |
| | | | | | | | | | | | | | over land | | | | | | |
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REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PAC.

MONTH OCT

DISTURBANCE NAME OR NUMBER T11515 CORA

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fcst. C.I. | Code | Position Information | | | | Remarks | I n t l | |
|---------------------|--------------|-------------|--------------------|----------------------|-----|------|----------------------|------------|---------------|-------------|--------------|---------------|--------------------|----------------------|--------|------|------|---|------------------|----|
| | | | | | | | | | | | | | | Present | | Fcst | | | | |
| | | | | CF | BF | T | | | | | | | | Lat. | Long | Lat. | Long | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 01/1012 | VIS | D | 1 | 1 | 0 | 1 | | 1 | 1 | | | 2 | T1/1/00N/74 | 12.5N | 133.0E | | | | | |
| 01/1054 | IR | D | 1 | 1.5 | 0 | 1.5 | C | 1.5 | 1.5 | | | 2.5 | T1.5/1.5/D1.0/24 | 15N | 135.5E | | | | | SH |
| 01/10510 | VIS | D | 2 | 3 | .5 | 3.5 | | 3 | 3 | R | | 4.5 | T3.5/4/02.0/24 | 17.0N | 137.0E | | | ALMOST T4 | | 35 |
| 02/1150 | IR | D | 3.5 | 3 | 1- | 4- | | 3.5 | 3.5 | | | 4.5 | T3.5/3.5/D0.5/2 | 19.7N | 130.8E | | | GRID MARKS OUR STORM GRID CORRECTION | | 25 |
| 03/0004 | VIS | D | 4 | 3.5 | .5 | 4 | | 4 | 4 | A | | 5 | T4/4/01.0/24 | 21.5N | 129.5E | | | | | 25 |
| 03/10512 | IR | D | 4.5 | 4.5 | 1- | 4.5- | | 4.5 | 4.5 | | | 5.5 | T4.5/4.5/D1.0/24 | 23.9N | 128.8E | | | | | 25 |
| 04/0055 | VIS | D | 5 | 4- | 1 | 5- | C | 5 | 5 | | | 6 | T5/5/01.0/24 HRS | 26.3N | 127.7E | | | | | 25 |
| 04/1148 | IR | D | 5.5 | 5 | .5- | 5.5- | | 5.5 | 5.5 | | - | 5.5 | T5.5/5.5-D1.0/24 | 29.2N | 131.2E | | | GRID CORRECTION | | 25 |
| 04/1236 | VIS | D | 6 | 6- | 0 | 6- | 6 | 6 | 6 | | - | 6 | T6/6-/D1.0/24 HRS | 31.7N | 135.8E | | | | | 25 |
| 05/1012 | IR | W | 5.5 | 5.5-1- | 1 | 5.5 | 2 | 5.5 | 6 | | | 5 | T5.5/3/10.5/21 HRS | 34N | 140E | | | Report Eye | | 25 |
| 05/1255 | VIS | W | 5.5 | 2.5 | .1 | 3.5 | | 4 | 5 | R | | 3.5 | T4/5-/012.0/-4 | 35.1N | 151E | | | | | 25 |
| 05/0951 | IR | | | Extra-Tropical | | | | | | | | | | | | 37.5 | 157E | | | 25 |
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TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. Pac.MONTH OCT.DISTURBANCE NAME OR NUMBER TD #17 ELSIE

| Date Time (Z) | Type Data | D S W | Model Exp. T | Data Prelim. T | | | Pat- tern Comp | Final T | Final C.I. | R S A | + or - | Fest. C.I. | Code | Position Information | | | | Remarks | I n t l |
|---------------------|--------------|------------------|--------------------|----------------------|-----|------|----------------------|------------|---------------|-------------|--------------|---------------|---------------------|----------------------|--------|--------------------------------------|------|---------|------------------|
| | | | | CF | BF | T | | | | | | | | Present | | Fest | | | |
| | | | | | | | | | | | | | | Lat. | long | Lat. | Long | | |
| 9/2352 | VIS | D | 1 | 1 | 0 | 1 | 2 | 1 | 1 | A | | 2 | T1/1/00.5/24HRS | 12.11 | 137.8E | | | | |
| 9/2352 | IR | D | 2 | 2 | 5 | 2.5 | | 2.5 | 2.5 | | | 3.5 | T2.5/2.5/01.5/12 | 14.5N | 135.5E | | | | |
| 10/0045 | VIS | D | 2 | 3- | .5 | 3.5- | 3e | 3 | 3 | R | + | 4.5 | T3/3+/02.0/24HRS | 16N | 133.4E | | | | |
| 10/1129 | IR | D | 3.5 | 2- | 2 | 4 | 3c | 3.5 | 3.5 | R | | 5 | T3.5/3.5/D1.0/24 | 18.5N | 130.5E | | | | |
| 10/2346 | VIS | D | RAPID 4.5 | 4- | 1- | 5- | 4a+ | 4.5 | 4.5 | R | + | 6 | T4.5/4.5+/D1.5/24 | 17.9N | 127.7E | | | | |
| 11/1225 | IR | D | RAPID 5 | 6 | .5 | 6.5 | | 6 | 6 | R | | 7 | T6/6/D1.5/12HRS | 19.5N | 124.8E | CNTR CORR. 2 1/2° TO SSE. | | | |
| 12/0039 | VIS | D | RAPID 6 | 4.5+ | 2- | 6.5- | 6d | 6.5 | 6.5 | R | | 7.5 | T6.5/6.5/D2.0/24HRS | 20.3N | 122.9E | +1 DEG ADJ N-S | | | |
| 12/1320 | IR | D | 7 | 5.5 | 1 | 6.5 | 5.5 | 6.5 | 6.5 | S | | 6.5 | T6.5/6.5/00.5/24 | 21.3N | 120.7E | | | | |
| 13/0135 | VIS | W | 5.5 | 4 | 1.5 | 5.5 | 5a+ | 5.5 | 6.5 | A | | 5.5 | T5.5/6.5/W1.0/24 | 21.6N | 118.7E | GRID CORRECTION +.4 N +.5 E | | | |
| 13/1221 | IR | P _{12x} | 6. | 4 | 2 | 6 | 5.5 | 6 | 6 | A | | 6.5 | T6/6/00.5/12 | 21.6N | 117.2E | | | | |
| 14/0035 | VIS | S | 5.5 | 4 | 1+ | 5+ | 5a+ | 5.5 | 5.5 | | | 5.5 | T5.5/5.5/5.0/24 | 21.8N | 115.1E | | | | |
| 14/1316 | IR | W | 5 | 3+ | 1+ | 4.5 | 6 | 4.5 | 5.5 | | | 4 | T4.5/5.5/W1.5/24 | 22N | 113.7E | GRID CORRECTION -.6 lat +.1 long. | | | |
| 15/ | | | | OVER LAND | | | | | | | | | | 23N | 111W | | | | |
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OCEANIC AREA W. PAC. MONTH OCT DISTURBANCE NAME OR NUMBER TD#18

[illegible]

TROPICAL DISTURBANCE CLASSIFICATION WORKSHEET

OCEANIC AREA W. PACIFIC

MONTH OCTUBER 12

DISTURBANCE NAME OR NUMBER

TE FLOSSIE

[illegible]